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A Study of  
the Role of the Community Pharmacist  
in Responding to Symptoms

by  
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A thesis presented for the degree of  
DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF ASTON IN BIRMINGHAM

November 1987

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THE UNIVERSITY OF ASTON IN BIRMINGHAM

SUMMARY

A Study of the Community Pharmacist's Role  
in Responding to Symptoms

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Submitted for the degree of Doctor of Philosophy, 1987

Factors affecting the current role of the community pharmacist in responding to symptoms are investigated. Communication and collaboration with general medical practitioners (GPs), and the competency of pharmacists and counter assistants to perform the role of responding to symptoms, are examined.

A national survey of GPs, conducted by postal questionnaire, explores attitudes towards the role of the community pharmacist in the treatment of patients' symptoms, and towards future extension of such a role. A majority (over 90%) of respondents thought that the counter prescribing activities of the pharmacist should be maintained or increased. Doctors supported treatment of most minor illnesses by pharmacists, but there was relatively little support for the deregulation of selected Prescription Only Medicines. Three quarters of respondents were in favour of joint educational meetings for pharmacists and doctors. Most GPs (85%) expressed support for a formal referral route from pharmacists to doctors, using a "notification card".

A pilot study of the use of a notification card was conducted. Two thirds of the patients who were advised to see their doctor by the pharmacist subsequently did so. In most cases, the GP rated the patients' symptoms "significant" and the card "helpful".

Pharmacists' and counter assistants' competency in responding to symptoms was assessed by a programme of pharmacy visits, where previously-defined symptoms were presented. Some pharmacists' questioning skills were found to be inadequate, and their knowledge not sufficiently current. Counter assistants asked fewer and less appropriate questions than did pharmacists, and assistants' knowledge base was shown to be inadequate.

Recommendations are made in relation to the education and training of pharmacists and counter assistants in responding to symptoms.

Key words

Community pharmacists, Self-medication, Self-care, Pharmacy assistants, Response to symptoms.

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## DEDICATION

This thesis is dedicated to Ron and Margaret Morley, with much love and gratitude.

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# A STUDY OF THE ROLE OF THE COMMUNITY PHARMACIST IN RESPONDING TO SYMPTOMS

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LIST OF ABBREVIATIONS USED IN THE TEXT

B.M.A.	British Medical Association
B.P.A.	Basic Practice Allowance
F.P.C.	Family Practitioner Committee
G.M.S.C.	General Medical Services Committee
G.P.A.	Good Practice Allowance
L.P.C.	Local Pharmaceutical Committee
N.P.A.	National Pharmaceutical Association
P.M.R.	Patient Medication Record
P.S.G.B.	Pharmaceutical Society of Great Britain
P.S.N.C.	Pharmaceutical Services Negotiating Committee

## CHAPTER 1

### INTRODUCTION

The community pharmacist has traditionally been a source of advice to members of the public about their health. This activity can be termed "responding to symptoms" or "counter prescribing" and defined as:

"The recommendation by a pharmacist, using his professional judgement, of an appropriate course of action in response to a symptom described by a member of the public. This may include a suggestion that an over the counter medicine is used, the giving of health advice (with or without the sale of a medicine) or a recommendation to seek medical advice as soon as possible".

Responding to symptoms is therefore the giving of advice by the pharmacist in response to a request from a customer/patient. The historical development of community pharmacy, and in particular of the counter prescribing aspect of the pharmacist's role, has been recorded and discussed by other workers<sup>1,2</sup>

#### The effect of the National Health Service on the pharmacist's advisory role

Despite being a traditional and long-standing role of the community pharmacist, counter prescribing or responding to symptoms underwent a decline with the

inception of the National Health Service (NHS) in 1948, when free health care became available to all. For the first time, any patient had access to a doctor without payment of a fee, and medicines were available on prescription at no cost.

The impact of the NHS on pharmacy was enormous. In 1937 there were some 17,000 pharmacies dispensing 65 million prescriptions a year; the average population served by a pharmacy in 1940 was 2,902<sup>3</sup>. In 1955, there were 15,000 pharmacies dispensing 226 million prescriptions, a three and a half-fold increase from 1940<sup>4</sup>. By 1980 the number of community pharmacies had fallen to 10,600; this reduced number were dispensing 360 million prescriptions annually and the average population served had risen to 5,027 per pharmacy<sup>3</sup>. As a consequence of the increasing number of NHS prescriptions which were presented for dispensing, the nature of pharmaceutical services changed; the emphasis came to lie more on the pharmacist's dispensing function, and there was less demand for his advice about minor illnesses or other health matters. Patients could now see a doctor and receive medicines at no charge and were, therefore, more likely to do so than to ask the pharmacist's advice. The pharmacist, in turn, devoted his time to dispensing activities, from which he now derived a substantial part of his income.

Since 1948, the number of prescription items dispensed has increased continually, while the number of pharmacies has fallen, a decline which has only been dramatically reversed with the prospect of a new contract for community pharmacies<sup>5,6</sup>. Most pharmacies are now dependent on NHS dispensing for the greater part of their incomes (over 70% of income in the 'average' pharmacy)<sup>7,8,9</sup>. In 1974, 26% of



community pharmacies obtained over 60% of their turnover from NHS dispensing, by 1982, 62.5% of pharmacies did so. Pharmacies which are branches of large multiples are generally less dependent on NHS dispensing; in one survey, some pharmacies in urban areas reported that less than 20% of their turnover was derived from NHS dispensing<sup>7</sup>. The average community pharmacist dispensed 2 800 NHS items each month in 1984, equivalent to one prescription item every four minutes<sup>10</sup>; many pharmacies dispense far greater numbers; some have been termed "prescription factories" for this reason. Priorities within the pharmacist's role and usage of time have, therefore, been re-allocated.

Results of recent research suggest that relatively few pharmacists have chosen to employ dispensing technicians with recognised dispensing qualifications to whom the mechanics of "counting, pouring and labelling" might be delegated<sup>11,12</sup>. In one survey, 40% of pharmacies employed one or more trained technicians of this type, further analysis by pharmacy ownership type showed that one third of independent and small chain pharmacies did so, compared to over half the branches of large multiples. Employment of technicians, as might be expected, related to the number of prescriptions dispensed. One in five pharmacies employed no ancillary staff involved in dispensing<sup>11</sup>. The reason why comparatively few community pharmacies employ trained dispensing staff have not been elucidated; they may be partly financial, since trained technicians are more costly to employ than untrained staff. Pharmacists may see technicians as a professional threat, especially when pharmacists' remuneration is tied so closely to NHS dispensing.

The concurrent development of the pharmaceutical industry heralded other changes for community pharmacy.



he system which had previously involved mainly manipulative dispensing, where the pharmacist was heavily involved in the manufacturing or compounding of medicines, changed so that today, the majority of items on prescription and those sold over the counter are manufactured and pre-packaged by pharmaceutical companies.

The effect of the NHS and the decline of the pharmacist's role in compounding of medicines might be considered to have contributed to a perception of the community pharmacist's role as a dispenser of medicines than a giver of advice. The community pharmacist is considered by some to have undergone "de-skilling", his role having been reduced to that of "counting pills and pouring potions". To summarise, this change in the public's perception of the pharmacist can be attributed to three main factors:

1. The increased number of prescriptions to be dispensed leaving less time than previously for the pharmacist to talk to patients.
2. A fall in demand for the pharmacist's advice after the inception of the NHS, especially initially, when all prescribed medicines were free.
3. The increase in large-scale manufacture of prescription and over the counter medicines by the pharmaceutical industry.

The emergence of the NHS may have discouraged the individual's feeling of responsibility for his own health. Patients' expectations of health care services had changed. They now had ready access to the general medical

practitioner, for whose services they did not have to pay directly. As a result, the level at which patients self-referred to the formal system of medicine probably underwent a reduction; that is to say, people became more likely to consult a doctor about symptoms which they would previously have treated themselves or left untreated. There is some evidence that less serious illness became increasingly regarded as justification for absence from work, one discussion paper stating "at least part of the explanation for increased incapacity attributed to these 'trivial' conditions is a change in threshold levels at which an illness is translated into a spell of sickness absence"<sup>13</sup>.

Certainly, doctors perceive that they are often consulted for 'minor' conditions; one survey of general practitioners in 1968 showed that, on average, general practitioners (GPs) thought that up to one third of their consultations were for "trivial" or "minor" conditions<sup>14</sup>. The survey was repeated ten years later and the results showed this proportion to have remained constant<sup>15</sup>. Similar findings were obtained from another survey, establishing that half the GPs responding felt that at least 25% of their consultations were for conditions which patients could treat themselves<sup>16</sup>.

#### Perceptions of health and illness

When members of the public are asked about their perceptions of their own health, the incidence of symptoms of illness is high. Dunnell and Cartwright<sup>16</sup>, in their major survey of medicine use, found that only 9% of adult respondents said they had not experienced any symptoms of illness during the previous fourteen days. Among adult respondents (defined as those aged twenty-one and over),

the average number of symptoms reported during the preceding two weeks was 3.9. People who considered their health to have been 'excellent' during the survey period reported 2.5 symptoms on average; those who rated their health as 'poor', 6.2 symptoms. Other large-scale surveys in the United Kingdom have confirmed that a high proportion of the public experience symptoms<sup>17,18,19</sup>. Wadsworth et al<sup>17</sup> reported that 95% of their respondents had experienced symptoms of ill-health in the previous fourteen days. Hannay<sup>18</sup> conducted a survey which showed that 86% of respondents' had symptoms of ill-health in the fourteen days before the interview. In the 1977 General Household Survey<sup>19</sup>, 85% of women and 76% of men reported health problems during the preceding fourteen-day period. Many of the symptoms were classified as constituting "short-term ill-health"; 52% of men and 57% of women experienced such symptoms. Research in other countries has obtained similar results<sup>20,21,22</sup>. In a New Zealand survey<sup>20</sup>, 76% of respondents had experienced symptoms during the previous fourteen days; the corresponding figures from German<sup>21</sup> and Swiss<sup>22</sup> studies were 77% and 84% respectively.

The sociology of health and illness is complex, and definitions of health vary widely<sup>23,24,25</sup>. The World Health Organisation (WHO) considers good health to be "A state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity"<sup>26</sup>. If this definition were to be applied, few people would consider themselves totally healthy.

Dunnell and Cartwrights' findings<sup>16</sup> suggest that some people will accept the presence of some symptoms which they regard as minor, and still consider themselves to be in good health. Such symptoms may be thought to produce discomfort, but not to the extent that the person

experiencing them casts him or herself in the role of being ill. It is therefore likely that people experience and recognise symptoms without accepting or recognising this as ill-health. Suchman<sup>24</sup>, in his discussion on health and illness considers that two people can have the same symptoms or disease but differing degrees of "illness" (incapacitation) and different degrees and types of "sickness" (reaction to the presence of symptoms).

For a person to seek advice or purchase an over the counter medicine to treat a condition, an initial recognition that something is wrong or out of the ordinary is required, followed by the decision that action will be taken. A series of decisions are then necessary about the best course of action to take. Advice may be sought from family or friends (the 'social network'), pharmacists, other health professionals (for example, nurses, health visitors), 'alternative' practitioners (for example, herbalists, osteopaths), or a consultation may be arranged with the family doctor. Alternatively, no action may be taken, and the condition left to deteriorate or resolve itself.

#### Sources of advice about symptoms:

##### a. The general practitioner

Despite the apparently high incidence of illness in the community, only a minority of cases have ever reached the formal referral system of the NHS, that is, the general medical practitioner or the hospital. Studies undertaken in the 1940's and 1950's showed that 25-30% of patients consulted their GP if they were experiencing symptoms of illness<sup>27,28,29</sup>. More recent studies suggest that this figure is now markedly lower, and that some 10-12% of



patients with symptoms consult their doctor<sup>16,17,18,19,30,31,32,33</sup>. Dunnell and Cartwright<sup>16</sup> found that 16% of those who experienced symptoms of ill-health saw their doctor. Wadsworth et al<sup>17</sup> reported a rate of 12%. Hannay<sup>18</sup> found that 34% of respondents had undergone professional or formal referral, but this category included not only the GP but also hospitals, dentists, chiropodists, opticians, nurses and health visitors. The results of the 1977 General Household Survey<sup>19</sup> show that 8% of men and 9% of women who experienced short-term ill-health had seen their GP. Morrell<sup>30</sup>, in a study involving the keeping of health diaries by a sample of women aged from twenty to forty-four, found that the GP was consulted on only 3% of occasions when symptoms occurred. Pratt<sup>31</sup> in 1973, reported that the doctor was seen by up to 25% of patients with symptoms. A study based on 2000 interviews with adults and children showed that 91% of all health problems were dealt with without seeing the doctor<sup>32</sup>. In a more recent study, where 1217 adults reported symptoms experienced and actions taken during a twelve-month period, 12% of patients who experienced symptoms, consulted a doctor<sup>33</sup>. While the definitions of ill-health and symptoms, and the methodologies used may have varied between these surveys, there is little doubt that most symptoms which occurred were not dealt with by seeking medical advice. Results of studies from New Zealand and Sweden indicate that a similar proportion of patients consult the doctor about their symptoms<sup>20,34</sup>.

#### b. The pharmacist

There is relatively limited published research to show the percentage of people who have consulted the pharmacist

for advice. Two large-scale studies have investigated the action taken by members of the public when symptoms of illness were experienced during the previous fourteen days. The results showed that 1.2%<sup>17</sup> and 2%<sup>19</sup> of respondents said they had consulted a pharmacist. In a study conducted in Switzerland, 4% of subjects claimed to have asked the pharmacist's advice<sup>22</sup>.

Data gathered during consultations with a general practitioner can provide another source of information on advice-seeking behaviour. Elliott-Binns, a general practitioner, in a survey reported in 1973, found that 11% of his patients said they had asked a pharmacist for advice before going to the doctor<sup>35</sup>. By 1985, when the survey was repeated, the percentage had risen to 16%; Elliott-Binns attributed this in part to the reduced accessibility of general practitioners<sup>36</sup>. In his analysis of the quality of advice received from health professional and lay sources, Elliott-Binns found that from pharmacists to be the most sound and least harmful compared to other sources<sup>35</sup>.

A survey of patients who rarely consulted their doctor showed that 12% had sought advice from a pharmacist<sup>37</sup>. Research workers who carried out a series of interviews with women found that 15% of their respondents said they had asked a pharmacist for advice within the previous four week period<sup>38</sup>.

#### c. Lay sources

The results from the 1977 General Household Survey showed that 18% of men and 16% of women had asked someone other than a doctor for advice about symptoms they had experienced during the previous fourteen days. Younger men and women were much more likely than older people to have done so<sup>19</sup>.

Elliott-Binns found that before consulting the general practitioner, advice was received, on average, from two sources. Sources of advice had been utilised as follows<sup>36</sup>:

Friends	52%
Spouse	43%
Relatives	44%
Television	6%
Books	8%

All indications are that there is an extensive network of lay advice and referral, about which relatively little is known. A Swedish study found that when children were ill, 80% of health activities were delivered by the family without the involvement of outside medical health<sup>34</sup>.

Lay advice also plays an important role in influencing choices of medicines for self-medication. Four studies examined sources of advice about the purchase of over the counter medicines<sup>16,33,39,40</sup> and the results are summarised in Fig. 1.1 below.



Fig. 1.1 Sources of advice/influence on OTC medicine purchases

	Dunell & Cartwright (1968) <sup>16</sup>	Elliott & Jepson (1981) <sup>40</sup>	Walker (1983) <sup>39</sup>	Mitra (1987) <sup>33</sup>
Friends	13%	18%	23%	.
Family	30%	27%	12%	22%
Own experience	.	6%	.	50%
Advertisements	8%	4%	5%	6%
Doctor/dentist	10%	15%	.	9%
Pharmacist	6%	18%	17%	7%
Pharmacy asst.	.	12%	6%	.

Walker's study concerned childrens' illnesses and the actions taken by mothers to care for them, whereas Dunnell & Cartwrights' and Mitra's dealt with the general population. Women have been shown to be higher users of pharmacies than men, particularly mothers of young children<sup>38</sup>. This probably explains why a higher percentage of respondents said they had consulted a pharmacist for advice about medicine purchases in Walker's study. Elliott and Jepsons' study examined influences on purchasing of cough medicines, rather than on over the counter medicines in general. All the studies demonstrated that advice is sought and received from family members and friends about medicines to a large extent (22-45%). Television advertising was said to have influenced the choice of purchase in 5-6% of cases<sup>33,39</sup>.

Relatively little research has been conducted to investigate lay advice and referral patterns. Although it is clear that only a minority of symptoms and illness ever

reach the doctor, the process of decision-making and action-taking by patients is not well-documented.

#### Use of over the counter medicines

As a result of questioning people about their use of medicines over a defined time period, Jefferys reported that a quarter of respondents had taken prescribed medicines and two-thirds non-prescription medicines during the preceding four weeks<sup>41</sup>. Similar results have been obtained by other workers<sup>14,17,30,42</sup>. A study of patients who rarely consulted their doctors found that more than 80% self-medicated<sup>37</sup>, and interviews with hospital in-patients showed similar findings<sup>42</sup>. Anderson et al<sup>43</sup> also found that non-users of general practitioners treated themselves with non-prescription medicines more often than those who used GP services. Jones<sup>44</sup>, in his study of self-medication, concluded that non-prescribed medicines were taken twice as often as those which were prescribed.

Other studies have found lower levels of use; in the 1977 General Household Survey, 45% of men and 49% of women with short-term ill-health in the previous fourteen days said they had taken medication (mainly non-prescribed) to treat their symptoms<sup>19</sup>; another survey found that 34% of respondents had taken non-prescribed medicines during the preceding fourteen days; however, this survey involved a sample of members of the public and was not targetted at those who reported symptoms<sup>18</sup>.

Limited information is available about medicine-taking by patients who later consult their doctor, but two studies in England and Sweden showed that half of those consulting their GP had taken medication to treat their symptoms before doing so<sup>36,45</sup>.

### The role of self-care and self-medication

In recent years, the concept of self-care re-emerged and was developed. There was a move towards encouraging people to assume active responsibility for their own health, rather than passively relying on the NHS on the assumption that it would take over their care if and when they became ill. This shift towards self-care occurred simultaneously with the increased development of preventive medicine and the concept that the individual had the potential to affect his own health by changing aspects of lifestyle, rather than simply accepting illness as his lot.

Self-care has been defined as "... a process whereby a lay person functions on his/her own behalf in health promotion and prevention and in disease detection and treatment at the level of the primary health resource in the health care system"<sup>46</sup>.

Four roles have been identified for self-care by Fry<sup>47</sup>:

1. Health maintenance.
2. Disease prevention.
3. Self-diagnoses, self-medication, self-treatment.
4. Patient participation in professional care (use of services).

The community pharmacist has potential involvement in all four roles, although he is currently more likely to be involved in responding to symptoms, i.e., the third role identified above. In the future, the community pharmacist may have an increasing role in health maintenance and health promotion<sup>48,49,50</sup>.

Possible reasons for the use of over the counter medicines were identified by Fryer<sup>51</sup>

1. To treat superficial, easily-recognisable conditions
2. To relieve the symptoms of conditions which are believed to be self-limiting and, in the opinion of the individual, not to require medical attention.
3. As supportive treatment in people with irremediable, non life-threatening conditions, who have had the benefit of medical advice and usually a diagnosis, but who have been advised by the doctor that the best course is to follow a particular regime, which may include some measure of self-medication.

For all these reasons, patients may decide to care for their own or family members' symptoms, using over the counter medicines, and they may well seek the pharmacist's advice about the best treatment.

#### The current role of the pharmacist in responding to symptoms

Previous work has attempted to quantify the advisory role of the community pharmacist by documenting the types of symptoms presented, their relative frequency of presentation and outcomes of consultation with the pharmacist<sup>52,53,54,55,56,57,58,59,68</sup>. This work will be discussed in greater detail later.

The most commonly-presented symptoms in community pharmacies in the UK are<sup>1,61</sup>:

Respiratory conditions (coughs, colds, 'flu)

Gastrointestinal (indigestion, diarrhoea, constipation)

Pain (headache, muscular pain)

Skin conditions (rashes, acne, infections)

Research indicates that the types of symptoms presented in pharmacies and their frequency vary between countries<sup>62</sup>. Switzerland appears to have a similar profile of symptoms presented to that in the UK<sup>22</sup>.

From work in the U.K., it is estimated that between ten and twenty-five people ask for advice about symptoms in the average pharmacy each day<sup>52,53,54,56</sup>. These studies involved observation by researchers or self-recording of requests for advice by pharmacists, and the most recently published was in 1980. Market research in 1984 based on interviews with pharmacists and counter assistants indicated that the numbers of requests for advice about symptoms had increased during the period 1976 to 1984<sup>61</sup>. However, such research reports perceptions of changes in the numbers of queries, rather than empirical data. Research in Canada conducted by recording of requests for advice showed that seventeen to twenty patients sought advice each day<sup>55</sup>.

Based on research findings and the number of pharmacies (currently around 12 000 for Great Britain)<sup>63</sup>, it can be estimated that between 118,000 and 295,000 people visit pharmacies each day to seek help and advice about symptoms. The role of the community pharmacist in dealing with the symptoms presented is therefore substantial, and the importance of appropriate advice-giving self-evident.

Research has shown that a significant proportion of queries about symptoms are dealt with by assistants rather than pharmacists, at least initially<sup>53,59,64,65,66</sup>. The results of four studies showed that the assistant gave advice on more than 50% of occasions<sup>59,64,65,66</sup>. However, counter assistants in community pharmacy appear to receive little training to prepare them for this role, one survey found that only 20% of counter assistants had been on any



kind of training course<sup>67</sup>.

Outcomes of consultations with community pharmacists have been documented, showing that about 12% of patients are referred to the doctor<sup>52,60</sup>; one study in Northern Ireland reported a referral rate of 29%<sup>68</sup>. Research indicates that over the counter medicines are recommended in 75-80% of consultations<sup>52,60</sup>; similar results were obtained in a Canadian study<sup>55</sup>.

#### The quality of advice given in community pharmacies

Few studies have examined the process of responding to symptoms in the practice setting or attempted to carry out any assessment of the pharmacist's competency in questioning and advice-giving<sup>64,65,69,70,71</sup>.

To date, there has been little audit of pharmacists' or counter assistants' activities in responding to symptoms and advice-giving, although there have been some attempts to document and evaluate the response of individual pharmacists to defined symptoms, and to assess the appropriateness of any course of action recommended and the quality of the advice given. One survey of pharmacists' advice in response to symptoms, sought to determine the extent to which the PSGB guidelines were being followed in practice by community pharmacists<sup>65</sup>. The researchers found that the guidelines were not consistently followed in practice; relevant questions were often not asked, and patients were not always referred to the doctor when the researchers considered this to have been the most appropriate course of action. The results of the survey indicated that pharmacists' competency in dealing with patients' symptoms could be developed and improved. Information from a survey of Australian pharmacists led to similar conclusions<sup>69</sup>

The existence of the "symptom iceberg" has been established; the majority of patients who are ill never enter the formal system of the National Health Service and either seek advice elsewhere, treat themselves or take no action to deal with their symptoms. The decision to contact the professional care-giver is largely at the patient's own initiative and is often the result of a lay referral process<sup>72</sup>. All research evidence suggests that without self-care, any system of health care would be swamped and unable to function.

Some of the factors involved in the patient's decision to choose the option of self-care which may lead to a consultation with the pharmacist will now be examined.

#### The decision not to consult the general practitioner

Many factors will influence the patient's decision about whether to consult their doctor when experiencing symptoms of illness; these are discussed below and summarised in Fig. 1.2 (below). Firstly, the patient's perception of the seriousness of their symptoms; there may be uncertainty about whether the condition is sufficiently serious to warrant a consultation, and the fear of disapproval or anger by the doctor if the condition is considered trivial. There are undoubtedly patients who do not want to "bother" their doctor and therefore seek alternative sources of advice<sup>73,74,75,76</sup>. Fear, or belief that the doctor cannot help or cure the condition may prevent a consultation being sought<sup>73,74</sup>.

Secondly, a consultation with the general practitioner would admit the patient into the formal referral system of the NHS; the patient would have to identify him or herself to the doctor, and would be aware that details of the consultation would be recorded in their medical records.



Fig.1.2. Reasons why patients may decide not to consult their doctor

Fear of disapproval  
Belief that the condition cannot be cured  
Unwillingness to enter into the  
formal N.H.S.system  
Presence of appointment systems  
Inconvenience  
Time involved  
Lack of faith in conventional medicine  
Limitations on prescribing  
Cost of prescription charges

Thirdly, the development and wide use of appointment systems in many group medical practices, while making practice management more efficient, has also meant in some cases that patients may have had to wait for several days if it was considered that an immediate consultation was not necessary. The possibility of a delay in obtaining an appointment may therefore affect whether a consultation is sought at all<sup>38,73,74,76</sup>. The prospect of a long wait for an appointment, and of time spent in travelling to and from the surgery may make the patient decide to opt for self-treatment. The results of one survey showed that 48% of respondents found it quicker and easier to get to a pharmacy than to the doctor's surgery, while only 21% thought the converse to be true<sup>16</sup>. The green paper on Primary Health Care cited patients' criticisms of the accessibility of general practitioners in its discussion of the future role of primary health care<sup>77</sup>.

Fourthly, the developing interest in

alternative/complementary medicine in the UK may be attributed in part to the dissatisfaction or lack of faith of some patients with "traditional" medicine. This has been reflected in the increasing numbers of patient consultations with alternative practitioners, and in an expansion in the availability and purchase of homeopathic and herbal medicines over the counter.

Fifthly, the introduction of limited list prescribing in 1985<sup>78</sup> meant that general medical practitioners could only prescribe on NHS prescription from a restricted list in the case of antacids, cough and cold remedies, vitamins and tonics, laxatives and benzodiazepines. With the exception of the latter group, most of the products in these categories were already available for purchase over the counter. Indeed, it was intended that more patients would choose to buy restricted medicines after the introduction of the list, thus resulting in savings in prescribing costs for the NHS. With the possibility of further controls on prescribing in the future, patients who were unable to obtain the medicine they felt they needed on NHS prescription may choose not to see the doctor.

Finally, the potential cost of prescription charges might influence the decision to see the doctor; a recent survey showed that one in ten respondents who were eligible for prescription charges said they had decided not to visit the doctor on at least one occasion during the previous year because of such charges<sup>79</sup>.

#### The potential benefits of pharmacies as a source of health advice

These are summarised in Fig.1.3 below. The numbers and location of community pharmacies make them readily accessible; there are currently some twelve thousand

pharmacies in Great Britain and Northern Ireland, situated in high street shopping areas and residential areas in local communities. Pharmacies are therefore relatively accessible; one Government survey in 1980 found that 80% of people had access to a pharmacy within one mile of their home<sup>76</sup>.

Fig.1.3. Potential benefits of pharmacies as an advice source

- Large numbers of community pharmacies
- Readily accessible; convenient locations
- Availability of professional advice
- No appointment needed
- No fee for advice given
- No patient registration; patient can visit any pharmacy
- Anonymity maintained
- Cost of many OTC medicines is relatively low

The pharmacy is the only source of over the counter medicines where professional advice is available; a pharmacist is on duty in each pharmacy. Research has shown that members of the public do consider that the pharmacist is qualified to advise on the treatment of minor illness<sup>79</sup>.

No appointment is needed to seek the pharmacist's advice, in contrast to that of the doctor, and pharmacy opening times are longer than those of doctors' surgeries.

There is no fee charged to the patient for professional advice from the pharmacist; this is not the case for other professions involved in advice-giving, such as lawyers and solicitors.

Patients can visit the pharmacy and maintain their anonymity; they have no need to enter the formal system of

the NHS, unlike when visiting the doctor. Any patient can visit any pharmacy they choose, there is no registration with pharmacists as with GPs.

The cost of over the counter medicines, if treatment is recommended by the pharmacist is likely to be less than that of the prescription charge, currently at £2.40 per item. The pharmacist may advise that no treatment is required; research indicates that no purchase is recommended in some 20% of all requests for advice<sup>52,60</sup>.

It is therefore possible to identify reasons why patients might seek health advice outside the NHS system, and advantages which might accrue from the seeking of such advice from pharmacies. The development of self-care and self-treatment has potential advantages to the health service as well as to the patient:

1. Fewer GP consultations for minor illnesses might mean that doctors would have more time to spend with patients whose conditions are not suitable for self-care.
2. The potential resultant decrease in the number of NHS prescriptions as a consequence of more patients purchasing their own medicines might help to limit NHS costs.

A potentially valuable role has been identified and recognised for the community pharmacist as a "filter" for an initial consideration of patients' symptoms and for participation in health promotion and health education activities. Community pharmacists and their staff routinely advise customer/patients about a variety of symptoms and other health care matters, and the wide range of conditions which are presented in pharmacies has been documented<sup>1,39,53,58,61</sup>.



## Acceptability of pharmacists as a source of advice to the public

Evidence from research shows the pharmacist to be perceived by members of the public as a good source of health advice<sup>16,38,76,79</sup>. In the late 1960's, 57% of adults thought so<sup>16</sup>; by 1985, this percentage had risen to about 70%<sup>38,79</sup>. The Consumers Association's survey of attitudes towards pharmacists concluded that the public see the pharmacist as an appropriate adviser for common ailments, but not for more general health matters<sup>79</sup>.

Customer profiles for community pharmacy show that women, particularly those with young children, seek the pharmacist's advice most frequently<sup>38,76</sup>. Younger people are more likely to ask the pharmacist for advice than those who are older; in one survey, only 5% of respondents aged seventy-five or over had sought the pharmacist's advice compared to 25% of those aged 25-34. Almost twice as many women as men had asked for advice<sup>76</sup>. Since elderly patients can obtain their medicines free on prescription, it is perhaps not surprising that they might choose to seek the doctor's rather than the pharmacist's advice. However, following the same argument, mothers may obtain medicines for their children aged under sixteen without payment of prescription charges, yet they have been shown to be the most likely group to ask the pharmacist's advice. One survey of women customers found that the perceived low accessibility of the doctor, and inconvenience involved in seeing the GP were given as reasons why advice was sought from pharmacists<sup>38</sup>. The cost of medicines, then, seems not to be the most important factor in influencing the decision to seek advice. In their market research for the corporate advertising campaign for pharmacy, the National Pharmaceutical Association found that elderly patients held

a strong belief that the doctor, not the pharmacist was the most appropriate source of advice about health<sup>80</sup>. This may explain why such patients seek the pharmacist's advice infrequently.

#### PSGB guidance to pharmacists on responding to symptoms

In 1979, the Pharmaceutical Society set up a working party to consider the area of responding to symptoms. This action followed a motion proposed by the Slough branch and presented at the Annual Branch Representatives Meeting in 1977, and which read as follows:

"That Council should investigate the setting-up of a course in the diagnosis and treatment of patients, as applicable to general practice pharmacy"<sup>81</sup>.

The report of the working party was published in 1981 and contained, as an appendix, "guidance on instruction on the response by pharmacists to symptoms described in general practice pharmacy"<sup>82</sup>. This document forms the only formal PSGB guidance for community pharmacists on responding to symptoms, including advice about which symptoms might be appropriate for advice and treatment and those which require referral to the doctor. The guidelines identified specific symptoms which indicated serious disease and warranted immediate referral to the GP, for example, "bleeding from any orifice". A framework was also set out to help the pharmacist acquire the necessary relevant information from the patient, for example, by asking if the patient was taking any medication.

The process of questioning the patient about the problem plays a vital part in the pharmacist's management decisions. The issue of whether pharmacists should diagnose has been the subject of debate for many years, and will be discussed later. The Pharmaceutical Society have



agreed with the British Medical Association that community pharmacists will not diagnose; rather, they will respond to the symptoms presented. Pharmacists therefore will not state definitively the cause of the symptoms, but exclude serious disease by careful questioning then recommend symptomatic treatment if appropriate.

#### The National Pharmaceutical Association's Corporate Advertising Campaign

A corporate advertising campaign to promote the pharmacist's advisory role was launched in 1983 and is now in its fifth year. The campaign was initiated by the National Pharmaceutical Association (NPA), and funded by additional subscriptions from the Association's members. The Director of the NPA, prior to the start of the campaign, said "We are conscious of the need to tell the man in the street that his chemist is there, he is available to be used, and all that a person has got to do is walk in and ask to see the pharmacist. Equally, we have to persuade our members to make themselves available"<sup>83</sup>. The campaign received support from NPA members; in a ballot to decide whether subscriptions should be increased to fund the planned advertisements, over 70% were in favour<sup>84</sup>. One of the stated objectives of the advertising campaign was "To encourage more people to seek advice from the pharmacist about all aspects of medicines and family health care"<sup>85</sup>. Market research showed that 47% of respondents said they would seek the pharmacist's advice about over the counter medicines, and 30% about minor ailments<sup>85</sup>. By 1986, these percentages had risen to 65% and 51% respectively<sup>86</sup>, and the campaign was widely considered to have been effective in promoting the pharmacist's role. The previous and future impact of such advertising on the

numbers and types of symptom-related queries received by community pharmacists remain to be evaluated.

### The process of responding to symptoms

A structured approach to responding to symptoms is desirable in order for the pharmacist to obtain the necessary information on which to base a management decision. Balon<sup>60</sup> suggests a sequential approach to patient/pharmacist interviews, identifying five separate stages:

1. Initiation of the interview
2. Formation of hypotheses
3. Data gathering
4. Formation of a conclusion
5. Management of the patient.

Particular skills and knowledge can be identified as necessary for the pharmacist to respond to symptoms. Communication skills; questioning, listening and explaining skills are all requirements. The knowledge base would include pathology and disease states, symptoms and their possible causes, and a working knowledge of over the counter medicines, their constituents and possible adverse effects. In their suggested integrated undergraduate curriculum, the Nuffield Inquiry proposed that undergraduate students should be taught about "minor ailments, their symptom evaluation and symptomatic treatment" and "the social analysis of the role of the pharmacist; determinants of self-medication"<sup>3</sup>. Until recently, most undergraduate courses contained little material relating to responding to symptoms, and the training received during the pre-registration year varied considerably and depended on where the pre-registration experience was obtained. Community pharmacists in practice

may therefore have received little education or training in responding to symptoms.

#### Reference sources on responding to symptoms

There has been little in the way of standard and specialised reference material for pharmacists on responding to symptoms; two text books have been published in the UK: one comprises a series of articles reprinted from the Pharmaceutical Journal<sup>87</sup> which concentrates on symptom evaluation and the differentiation between minor and more serious illness. The other consists of a scientific evaluation of the available over the counter remedies and discussion of their appropriate use<sup>88</sup>. More recently, several commercially-sponsored reference sources have been published; the Pharmacist's Therapeutic Reference in 1985, a loose-leaf, symptom-based "dictionary"<sup>89</sup>, the Pharmacy Advice Compendium in 1986 (sets of leaflets about different symptoms, designed to be given to patients by the pharmacist)<sup>90</sup> and the Proprietary Articles Trade Association Reference Book in 1986 and 1987 (containing short articles on commonly-presented symptoms and their treatment)<sup>91</sup>. The latter three were distributed free of charge to all community pharmacies, and funded by advertising from manufacturers of over the counter medicines.

#### Legal classification of medicines

The range of medicines which can be recommended by the community pharmacist is defined by regulations under the Medicines Act 1968<sup>92</sup>. Under the current classification there are effectively three categories of medicines; firstly, those on the "Prescription Only Medicines" list (POMs), which can only be supplied on prescription, although

pharmacists may make emergency supplies of POMs in carefully specified circumstances. "General Sales List" medicines (GSLs) may be sold from premises other than pharmacies, for example, grocers and supermarkets. The third category, "Pharmacy Only" (P) medicines may only be sold from pharmacies, by or under the supervision of a pharmacist.

The Nuffield Report made several suggestions regarding legal classification of medicines, and supported the deregulation of medicines from the POM to the P category, recommending that worries about the possible excessive use of these medicines could be allayed by:

For medicines transferred from the POM to the P category, maintaining the ban on advertisement to the public which exists for all POM medicines.

Restricting the sale of the newly-classified medicines to pharmacists personally.

Requiring that records be kept of sales of these medicines<sup>3</sup>.

In effect, a new category of medicines would be created, "P/POM", which would be subject to some or all of the above conditions. In early 1982, an announcement was made that the Medicines Commission was considering the desirability of extending the use of self-medication in Britain, and that the possibility of transferring medicines from the POM to P category was under discussion<sup>93</sup>. In May 1982, a motion at the annual Branch Representatives' Meeting called for the Pharmaceutical Society to press for an increase in the number of preparations which pharmacists were able to



counter prescribe, including some medicines currently on the POM list; the motion was carried<sup>94</sup>. Pharmaceutical Society's Council agreed to set out a case for a change in status of some medicines<sup>95</sup>. The Annual Report of the Medicines Commission for 1981 concluded that there was a case for reviewing the procedure by which medicines were classified, with particular reference to the movement of preparations from the POM to the P category. Further consideration was to be given to this by the Medicines Commission<sup>96</sup>.

A DHSS circular was distributed soon afterwards, setting out a procedure whereby pharmaceutical companies and professional bodies might apply for a POM to become a P<sup>97</sup>. Pharmaceutical Society's Council decided to propose to the DHSS that a new category of medicines with legal status between POM and P should be created<sup>98</sup>.

A meeting was arranged between Council and DHSS representatives to discuss medicines which might be suitable for transfer to the P category. Shortly afterwards, a report in the Pharmaceutical Journal noted that Council felt that DHSS requirements for safety and efficacy data for medicines under consideration were so extensive as to effectively preclude applications by professional bodies<sup>99,100</sup>.

Three medicines were transferred from the POM to P category in 1983; loperamide in April<sup>101</sup>, terfenadine in June<sup>102</sup> and ibuprofen in August<sup>103</sup>. Some time ensued before an announcement in 1985 that topical hydrocortisone was due to become a P medicine<sup>104</sup>. A lengthy debate followed about the desirability or otherwise of allowing over the counter sales of hydrocortisone<sup>105,106</sup>, despite its availability over the counter in the USA since 1979, New Zealand since 1982 and Sweden since 1984 without



apparent problems<sup>107</sup>. Topical hydrocortisone 1% eventually became available without prescription in the UK in May 1987, subject to specific restrictions governing its sale.

The Nuffield Report commented "we believe that there are some drugs on the POM list which could safely be entrusted to pharmacists and the absence of which from the P category restricts their ability to perform their traditional advisory role"<sup>3</sup>.

Research evidence suggests that there is strong support among community pharmacists for the transfer of more medicines from the POM to the P category<sup>12,108,109</sup>. A recent survey showed that a majority of community pharmacists wished chloramphenicol eye drops, paracetamol/dihydrocodeine tablets and metoclopramide tablets to be available for their recommendation<sup>108</sup>. Pharmacists also supported the concept of a fourth class of medicines, the P/POM category, for sale only on their recommendation; they were less keen, however, about record-keeping for such sales<sup>108</sup>.

The Primary Health Care green paper noted the recommendation of Nuffield that there was scope for more medicines to be transferred and stated the Government's belief that "there is more scope for making better use of pharmacists' skills in advising patients". The review of the medicines classification system in 1982-3 was mentioned and views were requested on possible future changes<sup>77</sup>.

Professor Rosalind Hurley, Chairman of the Medicines Commission, in a speech in 1984, gave an indication of the characteristics which might allow a Prescription Only Medicine to be deregulated. The criteria were:

1. The breadth of information available on the medicine, including research data, clinical experience and adverse drug reaction profile.

2. The incidence of serious adverse drug reactions.
3. Efficacy for conditions treatable by self-medication.
4. Quality of the application submitted by the company concerned<sup>110</sup>.

#### The future role of the pharmacist in responding to symptoms

The current government has declared its approval of self-treatment and self-medication and has supported the pharmacist's role as an adviser on symptoms and health<sup>111,112,113,114</sup>. Publication of the Primary Health Care green paper in 1986 highlighted the government's support for an extended role for community pharmacists, including the giving of advice about prescribed and over the counter medicines, the management of minor illness and a greater involvement in health education and health promotion<sup>77</sup>.

#### The Nuffield Inquiry into pharmacy

In 1981, Dr Gerard Vaughan, then Minister of Health, announced that a wide-ranging inquiry was to take place into the whole system by which pharmacists were paid for NHS work<sup>115</sup>. The Nuffield Inquiry into pharmacy was announced in 1983, its terms of reference "To consider the present and future structure of the practice of pharmacy in its several branches and its potential contribution to health care, and to review the education and training of pharmacists accordingly"<sup>116</sup>. The Director of the Nuffield Foundation, Mr. James Comford, commented "the important thing to be examined is whether the training pharmacists receive is relevant to the work they do, and whether their skill and knowledge is properly used under the present system of practice"<sup>116</sup>.

A request for written evidence was issued by the

Nuffield Foundation Pharmacy Inquiry in 1984; evidence was invited from "interested individuals and organisations within and outside pharmacy". Seventeen issues were listed to provide guidance for comments; those of relevance to the community pharmacist's role in responding to symptoms were:

1. The profession as seen by its members, by members of related professions and by the public.
5. Changes and likely future trends in the role of the community pharmacist.
9. The relationship between the pharmacist and other members of the primary health care team, particularly the general practitioners.
10. The role, or potential role of the pharmacist as:
  - a. Monitor of prescribing, and of drug reactions and interactions
  - b. Adviser to the general public on symptom alleviation, to patients on drug taking, and in health matters generally.
11. The part played by medicines in therapy ... the appropriateness of the classification of drugs into those available only on prescription, those that may be sold only under the supervision of the pharmacist, and those available on general sale.
15. The interaction between, and reconciliation of, the professional role of the community pharmacist and his commercial activities<sup>117</sup>.

The Chairman of the Nuffield Committee of Inquiry, Sir Kenneth Clucas, in his letter to the trustees of the Nuffield Foundation, said ; "the pharmacy profession has a distinctive and indispensable contribution to make to health care that is capable of still further development. We have endeavoured to point the ways in which this may be achieved." The Nuffield Report reaffirmed the role of the

community pharmacist in advising patients about their symptoms. Among its recommendations was the deregulation of more medicines from the Prescription Only Medicines (POM) list to facilitate the treatment of a wider range of ailments by pharmacists<sup>3</sup>.

#### Commerce vs professionalism

The recommendation of over the counter medicines by pharmacists is a complex issue. It could be argued that since the pharmacist makes no charge for the advice he gives, he might be more likely to recommend the purchase of a medicine. This potential conflict of commerce and professionalism will now be discussed further.

Pharmacy is the health care profession most obviously connected with commerce and business, because community pharmacists operate from retail premises often located in shopping centres and high streets. In addition to the provision of an NHS dispensing service and selling over the counter medicines, other non-medical items are stocked and sold from pharmacies. These may include health-related items such as nutritional supplements and first aid products but often also include cosmetics, perfumes, toiletries and in some cases, confectionery, tobacco products and alcohol. This juxtaposition of the professional and the commercial (i.e. profit-orientated) roles has been used in the argument that pharmacy is not a true profession. McCormack<sup>118</sup>, a proponent of the argument that pharmacy is an incomplete profession, described pharmacy as a "marginal occupation" because its structure and functions as an occupation were considered unclear, and "because it has incorporated the conflicting roles of business and profession into its organisation".

The issue of whether pharmacy is a profession has been



discussed by other workers<sup>118,119</sup>; the attributes of a profession might be summarised as:

1. Possession of a specialised knowledge base: a high and recognised standard of generalised and systematic knowledge unique to that profession.
2. Acting in the public interest: first priority to the community interest rather than individual self-interest.
3. Self-regulation: that the profession controls the activities and behaviour of its members by a code of ethics.
4. Position of high status or recognition within society.

Pharmacy fulfils these criteria, although it has been argued that pharmacy is an "incomplete" or "marginal" profession because it does not exert control over the reason for its existence, i.e. the prescribing of medicines<sup>120</sup>. Such prescribing remains firmly within the domain of the medical practitioner, and pharmacists' dealings with medicines are usually after the prescribing decision has been made.

The hypothetical commerce vs professionalism conflict is exemplified in pharmacists' response to patients' symptoms. Currently, pharmacists receive no remuneration from the NHS in return for the advisory service they provide other than in relation to NHS prescriptions. It could be argued that the community pharmacist is not an impartial source of advice about health and is more likely to sell a product<sup>121,122</sup>. At the time when the National Pharmaceutical Association's corporate advertising campaign was proposed, a leading article in The Lancet voiced unease about the potential commercial/ethical conflict, asking "How far has the Pharmaceutical profession insulated itself against the lure of commerce?" and, while recognising that



the treatment of minor ailments by pharmacists was an important part of the health care system, stated "If pharmacists wish us to perceive that their advice is dispassionate, they will need to contrive a more persuasive message than that in the proposed advertisements"<sup>122</sup>. These comments were precipitated by one of the proposed advertisements for the NPA campaign, which was interpreted that the choice of a cough medicine was the main issue rather than the question of whether a cough medicine was appropriate at all.

Under the new NHS Contract for community pharmacies, the Basic Practice Allowance, which contained an element of payment for the advisory role of the pharmacist, has been abolished, so that remuneration for community pharmacists is tied totally to NHS dispensing services.

However, there is evidence that pharmacists deal with patients' symptoms without selling a medicine in about one in ten cases<sup>52,60</sup>, and there seems to be evidence that the potential conflict is not paramount in practice. One survey of pharmacists in the US showed that an expression of high importance placed on the professional role was not correlated with a low priority for the business role or vice versa, that is, in practice, a high level of professionalism existed alongside a high level of business awareness<sup>123</sup>.

It should also be remembered that many of the customer/patients who visit pharmacies for advice are aware that their condition is self-limiting, but wish to purchase a medicine that will alleviate their symptoms. There may often be, then, a prior decision on the part of the patient that a purchase will be made.

However, there is no doubt that pharmacists sometimes sell goods in their shops which cannot be reconciled with

their role in the health care team, and in his discussion of the pharmacist's image in North America, Shaw asked "Can a pharmacist consider himself part of the medical complex which serves to promote better health while at the same time he promotes questionable products and provides known disease protagonists to make a profit?"<sup>124</sup>. Shaw was referring to the sale of tobacco products and alcohol in American pharmacies, and he went on to ask "Is it any wonder that the desire for social recognition of pharmacies has not been manifested in society?"<sup>124</sup>. While a PSGB Council statement now precludes the sale of tobacco<sup>125</sup> in British pharmacies, alcohol is still on sale from some pharmacies.

At the beginning of the National Pharmaceutical Association's corporate advertising campaign, the director of the advertising agency responsible for the campaign commented thus on the profit/professional conflict: "There is an obvious conflict in the credibility of your professional status when you surround yourself higgledy-piggledy with products not even remotely connected with your vocation"<sup>126</sup>.

At the inaugural session of the Commonwealth Pharmaceutical Association in 1982, Albert Howells, a past president of the PSGB commented "The shop-keeping, trading image has held the pharmacist back from his rightful place as a full member of the health care team ..... I therefore appeal to you yet again to avoid making your premises look like supermarkets. Concentrate instead on making them stand out as something different from all the shops in the street which sell ordinary articles of merchandise"<sup>127</sup>.

A recent sociological critique of community pharmacy in Great Britain contained the following statement from a proprietor community pharmacist: "The professional decision

is often a good commercial decision. There's not as much conflict long-term as you would think. At that moment you lose out commercially. But long-term your standing with the public is a very good commercial asset .... when you've got a regular clientele they get to know your honesty's valuable"<sup>128</sup>. This pharmacist was expressing the view that it would not always make good business sense to sell a product when it was inappropriate to do so, since pharmacy customers/clients would come to regard the pharmacist who did not always make the sale as someone whose advice was to be trusted, rather than as someone who would always try to make a profit. The authors of the paper concerned concluded "that there is a conflict between aspects of the pharmacist's role cannot be doubted ... but a simple dichotomy between "commercialism" and "professionalism" does not do justice to the complexity of the situation"<sup>128</sup>.

The report of the Nuffield Inquiry<sup>3</sup> considered the question of professionalism and profit and concluded that the two aspects were not incompatible in the provision of a professional service by community pharmacists, commenting "the fact that (pharmacists) work in a pharmacy only establishment is not in itself a guarantee that pharmacists will behave professionally; nor is the fact that they work in a shop an assurance that they will not." It is noteworthy that the Nuffield Report also commented on the potential advantage of pharmacy in a commercial environment, i.e. that the accessibility of pharmacies to the public is therefore increased, and can provide an environment which people may find less intimidating than some more formal establishments. In addition, because pharmacies sell non-pharmaceutical goods, their customers include those who are healthy as well as those who are ill;

this may give pharmacists increasing scope to become involved in screening for disease and promoting health.

#### Remuneration for community pharmacies

Under their NHS contract, pharmacies are paid on the basis of the number of prescriptions dispensed. As mentioned earlier, the Basic Practice Allowance was intended to provide some remuneration for professional activities, including advice-giving. The abolition of the Basic Practice Allowance was considered "a retrograde step" by the Nuffield Inquiry<sup>3</sup>. While the concept of the Basic Practice Allowance was open to criticism because it was given to all pharmacies irrespective of the quality of service provided, it represented an attempt to provide financial recognition for pharmacists' advice. The Nuffield Report recommended that new methods of remuneration should be considered, so that the advisory service was funded by the Health service. The possibility that the basis of remuneration might be appropriately linked to services provided in practice was proposed in 1982 by Professor George Teeling-Smith in the inaugural lecture of the College of Pharmacy Practice, when he recommended that "all extra money for the service must go to those setting high professional standards rather than being distributed equally among the good and the bad"<sup>129</sup>.

#### The concept of a Good Practice Allowance (GPA)

The Pharmaceutical Services Negotiating Committee (PSNC) has proposed that a Good Practice Allowance (GPA) should be instituted for community pharmacies, with payments related to measurable criteria. Only those pharmacies which achieved the set criteria would be eligible for the GPA. The PSNC expressed the view that a GPA was imperative now



that the BPA had been abolished<sup>121</sup>.

In its paper Primary Health Care, an agenda for discussion, the Government set out a framework for the establishment of a GPA for general medical practitioners, and suggested the following might be included as criteria for payments:

1. Personal availability to patients, both for surgery consultation and in terms of out-of-hours cover.
2. The provision of a wide range of services, including preventive activities based on systems for identifying certain patients for periodic review (i.e. age/sex registers)
3. Ensuring that certain services, e.g immunisations, have been provided for an agreed proportion of patients in relevant categories.
4. Attendance at recognised postgraduate education courses<sup>77</sup>.

In addition to these 'objective' measures, the possibility of standards of doctors' practice being assessed by peer review was raised. The concept of the GPA was turned down by the GMSC<sup>131</sup>.

The Nuffield report suggested a change in remuneration under the NHS Contract so that payments currently made for 'on-cost' and 'professional fees', linked presently only to the number of prescriptions dispensed, should be altered to provide a financial incentive for the development of professional services. The following were suggested as a basis for payment:

1. Work done in collaboration with doctors to improve prescribing and make it more cost-effective. This would also cover work done as a member of a Drug and Therapeutics Committee.
2. Advice to patients in response to symptoms. Payments



here might be related to the provision of specific facilities and the keeping of simple records.

3. Services to individual patients on long-term or complicated medication, e.g. elderly patients. A capitation fee, payable when such patients registered with a pharmacy, was suggested.

4. Domiciliary activities and attendance at clinics.

5. An appropriate range of pharmaceutical services to the NHS and other publicly-owned residential establishments

6. Health education

These elements might form the basis of a Good Practice Allowance for community pharmacists. The Nuffield Report emphasised that payments for advice must be separately remunerated, not "hidden" in the global sum and distributed according to prescriptions dispensed. The administrative difficulties inherent in establishing such a system were recognised, but it was considered "essential that problems of administration should not be allowed to stand in the way"<sup>3</sup>. Since then, the PSNC has compiled a list of twenty items which might form the basis for payments under a Good Practice Allowance<sup>132</sup>.

The National Pharmaceutical Association has expressed its regret at the loss of the Basic Practice Allowance, and support of payments for services extra to NHS dispensing. In its submission to the House of Commons Social Services Committee, agreement with Nuffield's comments about remuneration for community pharmacists was expressed, and the belief that the current remuneration system might be "a disincentive for pharmacists to do more than is strictly necessary to comply with their terms of service"<sup>133</sup>.

#### The Second Pharmacist Allowance

The potential advantages of two pharmacists being on

duty at the same time in a community pharmacy are numerous. One pharmacist might be responsible for checking prescriptions, the other on duty in the shop to advise patients about their medicines. In addition, the professional benefits which could result from the ability to discuss the best course of action in different situations with a pharmacist colleague are self-evident. Statistics show that some 10% of community pharmacies employ a second pharmacist<sup>11,12</sup>; branches of large multiples are more likely to do so<sup>11</sup>.

An additional allowance to facilitate the employment of second pharmacists was proposed by the PSNC<sup>134</sup> but rejected by the DHSS, which "understood the reasons for the proposed development of the service but could not agree to its introduction in the present economic climate"<sup>135</sup>.

Some of the factors which impinge upon the advisory role of the community pharmacist have been discussed in this chapter. For a system of initial consultations with pharmacists, followed by referral to the general practitioner (or other sources, for example, the casualty departments of local hospitals, where appropriate), to be fully effective, there are two prerequisites; firstly, that members of the public and of the medical profession recognise the pharmacy as a health information and advice centre, and secondly, that pharmacists and their staff are capable of fulfilling such an advisory role, i.e. that they are able to identify those patients who needed further investigation and make appropriate referrals.

The remainder of this thesis sets out to examine these prerequisites. It will examine the relationship between pharmacy and medicine and will consider some potential barriers to the development of the advisory role of the

community pharmacist, including that of communication difficulties with general practitioners. The procedure followed by community pharmacists in responding to patients' symptoms will be examined in detail, and the quality of service assessed. The future potential for the development of the advisory and educational role will be considered. Of particular importance is the attitude to pharmacy adopted by other health care professional groups.

## CHAPTER 2

### A SURVEY OF THE ATTITUDES OF GENERAL MEDICAL PRACTITIONERS TOWARDS RESPONDING TO SYMPTOMS BY PHARMACISTS

The interface and relationship between pharmacy and medicine, and more specifically, that between the community pharmacist and the general medical practitioner, has been the subject of limited research in the United Kingdom. Previous surveys have explored the attitudes of general practitioners (GPs) towards the pharmacy profession as a whole<sup>136,137,138</sup>. In order to determine the attitudes of GPs towards the community pharmacist's role in responding to symptoms (sometimes termed "counter prescribing"), a survey was planned and conducted. The objectives of the survey were to:

1. Collect data on the attitudes of GPs towards counter prescribing by pharmacists.
2. Identify those symptoms which GPs agreed could be appropriately treated in the first instance by pharmacists.
3. Determine the opinions of GPs about the possible deregulation of some Prescription Only Medicines (POMs) to Pharmacy Only (P) medicines.
4. Ascertain whether general practitioners would favour joint postgraduate meetings for GPs and pharmacists.
5. Determine whether GPs would support the establishment of a formal referral system from community pharmacists to GPs.

## METHODOLOGY

Several research techniques were considered for the survey; these were

Face to face interviews

Telephone interviews

Group discussions

Postal questionnaire

Personal interviews are an effective method of gathering data, with the potential to produce rich and detailed information. A major advantage of the personal interview is that respondents' understanding of questions and issues can be checked, and additional explanation given if needed<sup>139,140,141,142</sup>. Probing to determine the reasons for particular answers, or to expand the given response is possible. Such interviews (either face to face or by telephone) were considered but discounted because of the difficulties inherent in conducting such interviews on a large scale, including the high expenses which would have been incurred. Face to face interviews would have necessitated visits to GPs' surgeries, which, for a single researcher, would have been impractical other than on a limited scale. Since resources were limited, the expenses incurred in travelling and subsistence costs also made face to face interviews unsuitable.

Telephone interviews also had inherent problems. The difficulties in attempting to contact a large number of general practitioners, securing their agreement to participate, then spending the necessary amount of time in telephone conversations (generally a minimum of ten minutes for each interview) were considered to make this method impractical. Limited resources would have precluded a national survey, because of the high cost of long-distance calls.



In-depth discussions involving small groups of respondents can be a useful technique for allowing detailed consideration of specific issues<sup>141,142</sup>. However, it was not thought to be an appropriate technique in this case, since the method is essentially qualitative in nature, and could have involved only a small number of doctors.

It was decided that a postal questionnaire would be the most appropriate method of data collection for the survey. In a postal survey, additional explanation and probing is not possible, so that questionnaire design and wording is of great importance<sup>139,140,141,142,143</sup>. Carefully-worded and unambiguous questions which can be readily understood by the respondent are required; different interpretations placed on an insufficiently clear question can mean that the respondents answer what they understand the question to be rather than that which was intended. This method had the advantage that the questionnaire could be mailed to a relatively larger number of GPs, on a national basis if wished. Thus, a larger-scale survey was possible than would have been the case with any other method considered; postal questionnaires provide the most cost-effective means of carrying out such a survey. It was felt to be important that the views of as many GPs were sought as resources would permit. The advantages of scale inherent in the postal questionnaire would allow meaningful statistical analysis.

Anonymity of respondents was considered to be desirable and more likely to result in frank replies. Thus, respondents were not required to identify themselves on the survey form, and the questionnaires were dispatched without identification numbers to reassure respondents that anonymity would be maintained. The disadvantage of guaranteeing confidentiality in such a manner was that

follow-up of non-respondents would not be possible.

### Questionnaire construction and mailing

#### i) Pilot Study

A pilot questionnaire, consisting of twenty-two questions (See Appendix 2.1) was designed and mailed to a random sample of one hundred and forty of the seven hundred GPs in the Birmingham Family Practitioner Committee area, thus representing 20% of the total number.

The questions included were mainly open-ended, intended to elicit the maximum amount of information to enable the construction of closed questions for the main questionnaire. Open-ended questions can be defined as those which "leave the respondent free to respond in a relatively unrestricted manner"<sup>143</sup>; they allow respondents to state their views and reasons for those views. Closed questions may be defined as those which "restrict choice of response by forcing the respondent to respond in terms of present categories or alternatives"<sup>143</sup>; they generally offer a series of options from which the respondent selects one or more. Although closed questions have been criticised on the grounds that they might limit respondents' replies, such questions, following a carefully-conducted pilot study, can produce meaningful data which is more readily analysed than that produced by open questions. A response rate of 25% was obtained, and the replies were analysed manually. It was considered that the relatively low response might be due to the open question format, which could have been time-consuming to complete.

The questionnaire for the main study was then designed, incorporating the findings from the pilot version. Closed questions were developed following trends observed. This approach to questionnaire construction, while

well-established, is open to criticism on the grounds that it has the potential to produce bias in the main survey by offering a limited number of options for the respondent to select. This was countered by the inclusion in each closed question of an option for the respondent to his/her own response if they did not wish to choose one of the options listed.

#### ii) Main Study

The modified questionnaire (See Appendix 2.2) consisted of eighteen questions, most of which were "closed", and often in a multiple-choice format to facilitate computer analysis. Respondents were asked to rate or grade responses on a pre-determined scale, to give a yes/no answer or make a selection from a list of alternatives. Such questions are both simpler and quicker to complete in addition to enabling ready analysis. Since the amended survey form could be completed more rapidly, it was considered more likely to elicit a higher overall response rate. All closed questions were pre-coded for computer entry. In order to gather additional and more detailed information on respondents opinions, and in particular, the reasoning behind some answers, space was left for individual comments. A facility for retrospective coding was included for these sections of the form, which were coded manually before data entry after the completed questionnaires were returned. Respondents were offered the opportunity to receive a summary of the survey results, and space was left for the GP's name and address.

#### Sample

In the main survey, questionnaires were mailed to fifteen hundred general practitioners in three areas of

England; the North East, the West Midlands and the South East. GPs practising in three distinct geographical areas were therefore included, to enable identification of any regional differences in response. It was not hypothesised that such differences were likely to exist, but it was felt that the survey design should allow for their determination.

Current Family Practitioner Committee (FPC) lists were used as the sampling frame. Each list was first amended to ensure its currency. General practitioners were randomly selected from the FPC lists, to obtain a sample which represented 25% of all general medical practitioners in fourteen FPC areas within four NHS regions.

### Mailing

A covering letter (See Appendix 2.3) was included with each copy of the questionnaire, and a personalised addressee system was used, with handwritten address labels, since there was some evidence that this might make it more likely for the GP to open the envelope himself, rather than a member of practice staff<sup>144</sup>.

The content of any covering letter mailed with a questionnaire is of great importance in convincing potential respondents of the value of completing the survey<sup>139,140,141,142</sup>. The letter was thus worded such that it was hoped the GP would be encouraged to participate; emphasis was given to the value of their individual opinions and response. The value of a carefully-worded covering letter is apparent; the letter is the introduction and perhaps only contact between researcher and respondent. There is no opportunity, unlike during a personal interview, for the researcher to persuade a respondent to take part after an initial refusal. Unless



the covering letter and questionnaire provoke sufficient interest in the respondent, the response rate may be low.

A stamped, addressed envelope, rather than one which was reply-paid was included in the mailings for both pilot and main study, since this has been shown to produce a higher response than a prepaid business reply type envelope<sup>140,141,142</sup>.

#### Coding and analysis

The completed questionnaires were coded manually for respondents' additional comments; this was carried out by the construction of a codebook. The codebook listed the reasons or comments given; these were grouped, classified, and each was allocated a numerical code. One section of the codebook is included below (Fig.2.1), showing the codes assigned to respondents' reasons for not considering the community pharmacist to be a member of the primary health care team.

The Chi-Squared Test was carried out to determine any association between variables. The findings of the test are quoted in the text below the appropriate table of results as the value of  $\chi^2$ , the number of degrees of freedom and the level of significance.



Fig.2.1 Excerpt from codebook for retrospective coding

Reasons why pharmacist is not a member of the Primary Health Care Team

<u>Code assigned</u>	<u>Reason</u>
1	Objection to concept of primary health care team
2	Geographical separation of pharmacy & surgery
3	Lack of regular communication
4	Pharmacist is primarily a businessman
5	Pharmacist not trained to diagnose & manage illness
6	Pharmacist only being used as dispenser, under-used
7	Patients can use more than one pharmacy
8	Pharmacist not responsible for total patient care
9	Lack of facilities for examination/private discussion

Retrospective coding was used to record the area of origin (from the postmark, or details of the GP's name and address, where included). Where the respondent could be identified, the Medical Register was utilised to record the number of years since the respondent had become a registered medical practitioner, and their gender<sup>145</sup>. The purpose of these codings was to allow subsequent statistical analysis to correlate responses with age, gender and geographical area of practice.

### Analysis

Data from the coded questionnaires was transferred to punch cards then analysed using the Statistical Package for the Social Sciences (SPSS)<sup>146</sup>. The SPSS suite of

programmes was designed for survey analysis and allows a variety of statistical operations to be carried out, from simple frequency distributions to more complex tests for statistical significance. Of particular value is the ability to perform cross-tabulations of results, comparing variables to see if any one affects response; for example, answers could be analysed to examine the relationship between age and the responses given.

#### Associated survey of Professors of General Practice and Community Medicine

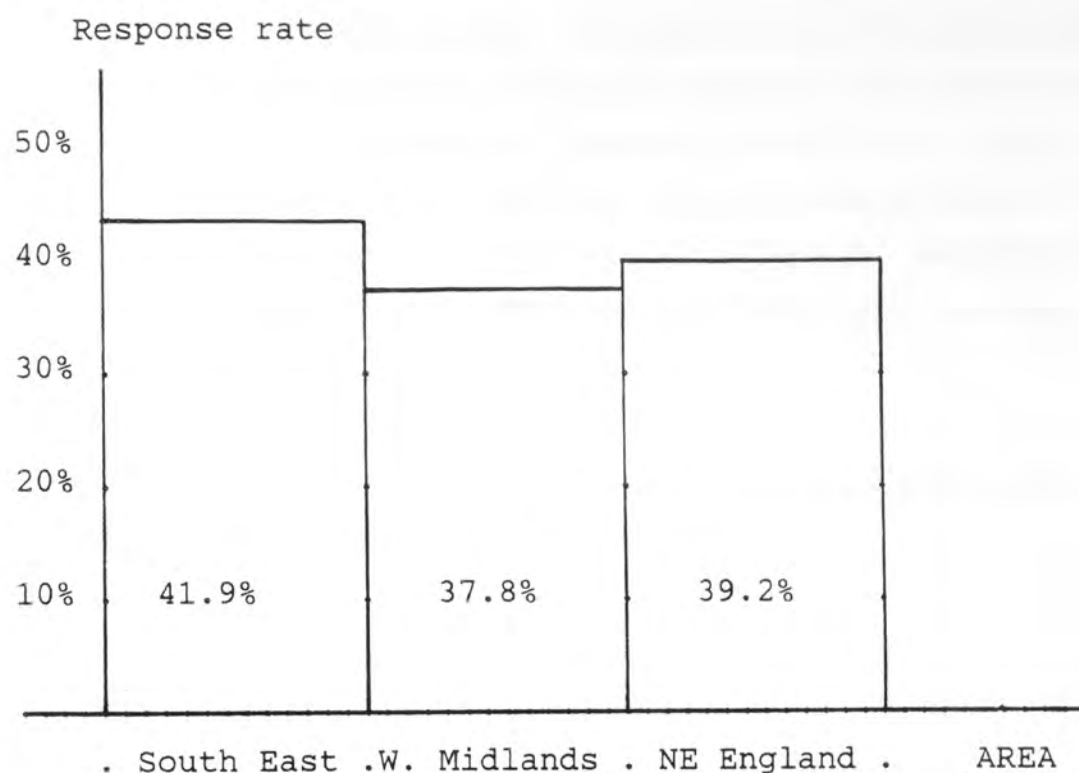
In addition to the main distribution to general medical practitioners, the questionnaire was sent to all Professors of General Practice in University Faculties of Medicine. If there was no Department of General Practice Medicine, the questionnaire was mailed to the Professor of Community Medicine. This self-limiting survey was carried out to enable some comparison to be made of the attitudes of leading academics who were involved in both the teaching and practice of general practice medicine, and who were potential opinion leaders and formers, with those of "grass roots" general practitioners.

## RESULTS

### Response Rate

A response rate of 40% was achieved for the main study. The increase in response from the pilot study was considered to be due to the modified nature of the questionnaire facilitating its completion. Fig.2.2 shows the response rates from GPs in the three selected areas.

Fig.2.2 : Response rates by geographical area;  
GP questionnaire



A total of six hundred and eight (40.5%) completed questionnaires were returned, of which five hundred and ninety-eight could be utilised for analysis (40%). Twenty-three incomplete forms were returned; in three cases the GP had died, three were returned because the GP was absent from the practice, ten where the doctor had left the practice and seven which were returned with notes to the effect that the recipient had insufficient time to complete it. Four hundred and forty-eight GPs included details of their name and address (75%); of the remaining one hundred and fifty, one hundred and nineteen were returned anonymously and thirty one could not be identified from the details included.

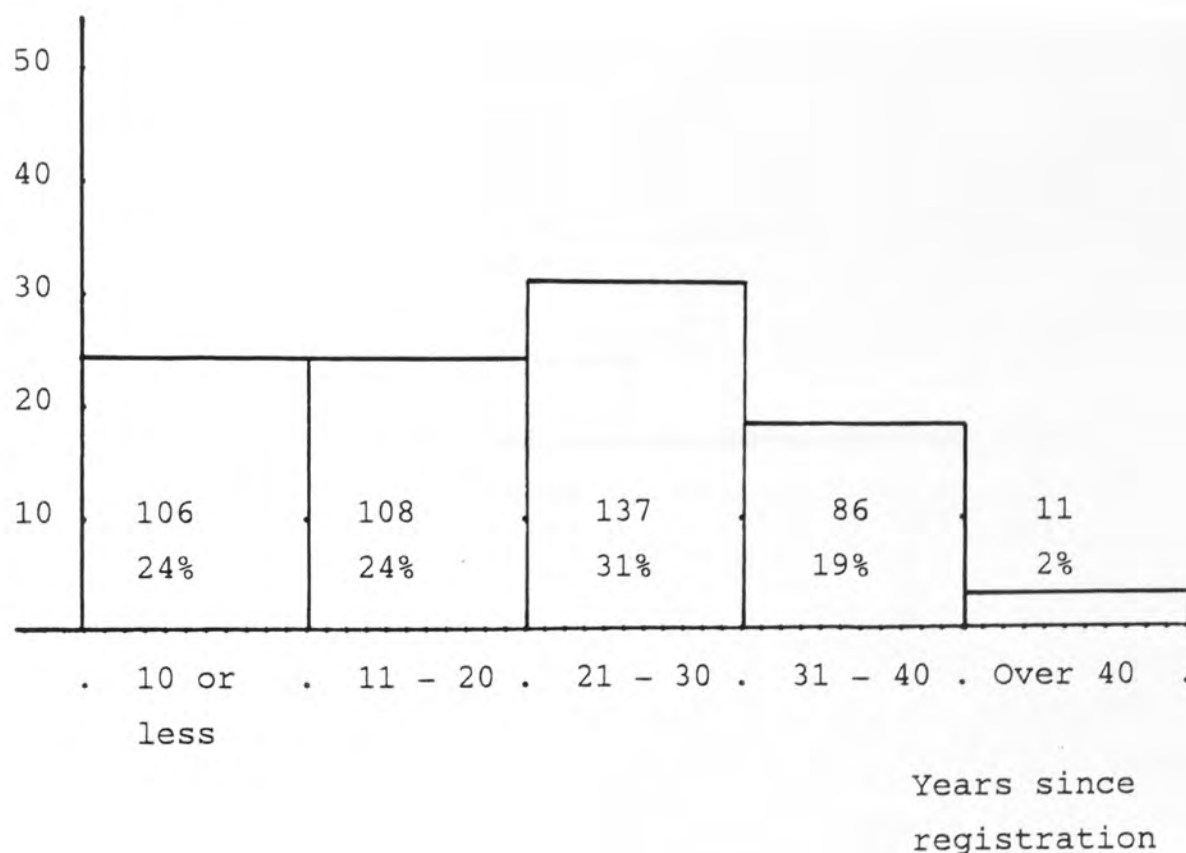
## Characteristics of respondents

### i) Number of years since registration

Analysis by the number of years since registration as a medical practitioner was possible for four hundred and forty-eight respondents is shown in Fig.2.3. Since most medical practitioners register at age twenty-three, these data can also be considered to closely represent the approximate ages of respondents. All age groups were well-represented.

Fig.2.3 Characteristics of respondents : Number of years since registration (GP Questionnaire)

Percentage of  
respondents

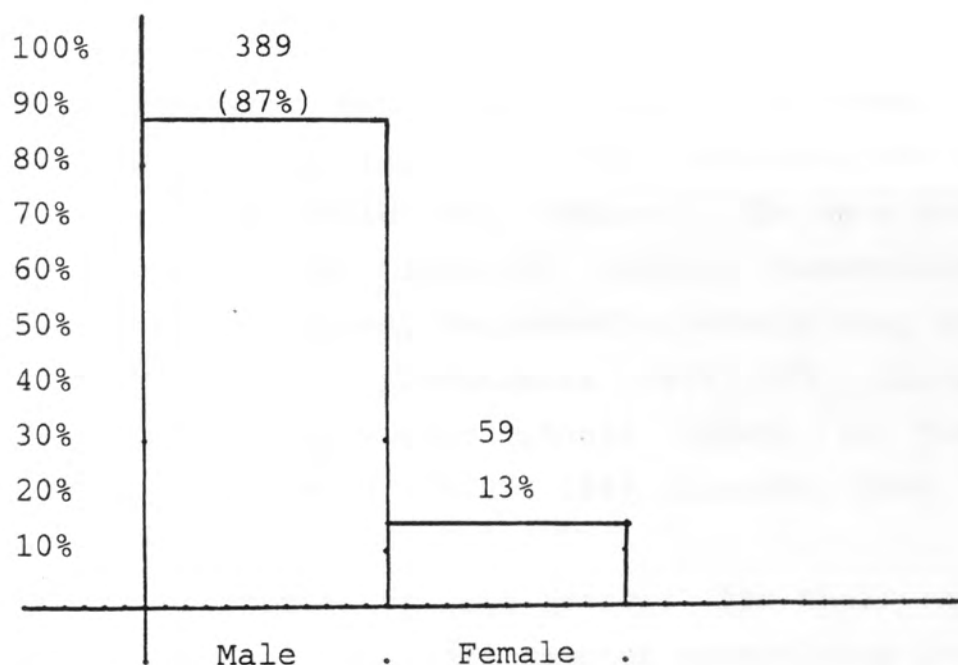


ii) Gender

The respondents' gender are shown in Fig.2.4 . Eighty seven per cent were male, thirteen per cent female. Statistics compiled by the Royal College of General Practitioners showed that eighty-one per cent of full-time general practitioners were male, nineteen per cent female<sup>147</sup>.

Fig.2.4 Characteristics of respondents : Gender  
(GP Questionnaire)

Percentage of  
Respondents





### The level of counter prescribing activity

A definition of counter prescribing was included on the first page of the questionnaire to ensure a standard understanding of the term. The following definition was used :

"The recommendation by a pharmacist, using his own professional judgement, of the best available medicine (or alternative remedy\*) to treat a particular symptom described by a member of the public, but only after deciding an immediate medical consultation is not necessary"

\* Includes general health advice

Respondents' attitudes towards the extent of counter prescribing activity were first explored, and the results are shown in Table 2.1 below. GPs were asked whether they thought the level of counter prescribing activity should be increased, decreased or should stay the same.

A majority of respondents (60%, 349) thought counter prescribing activities should remain at their current level; one third (32%, 188) thought they should be extended.

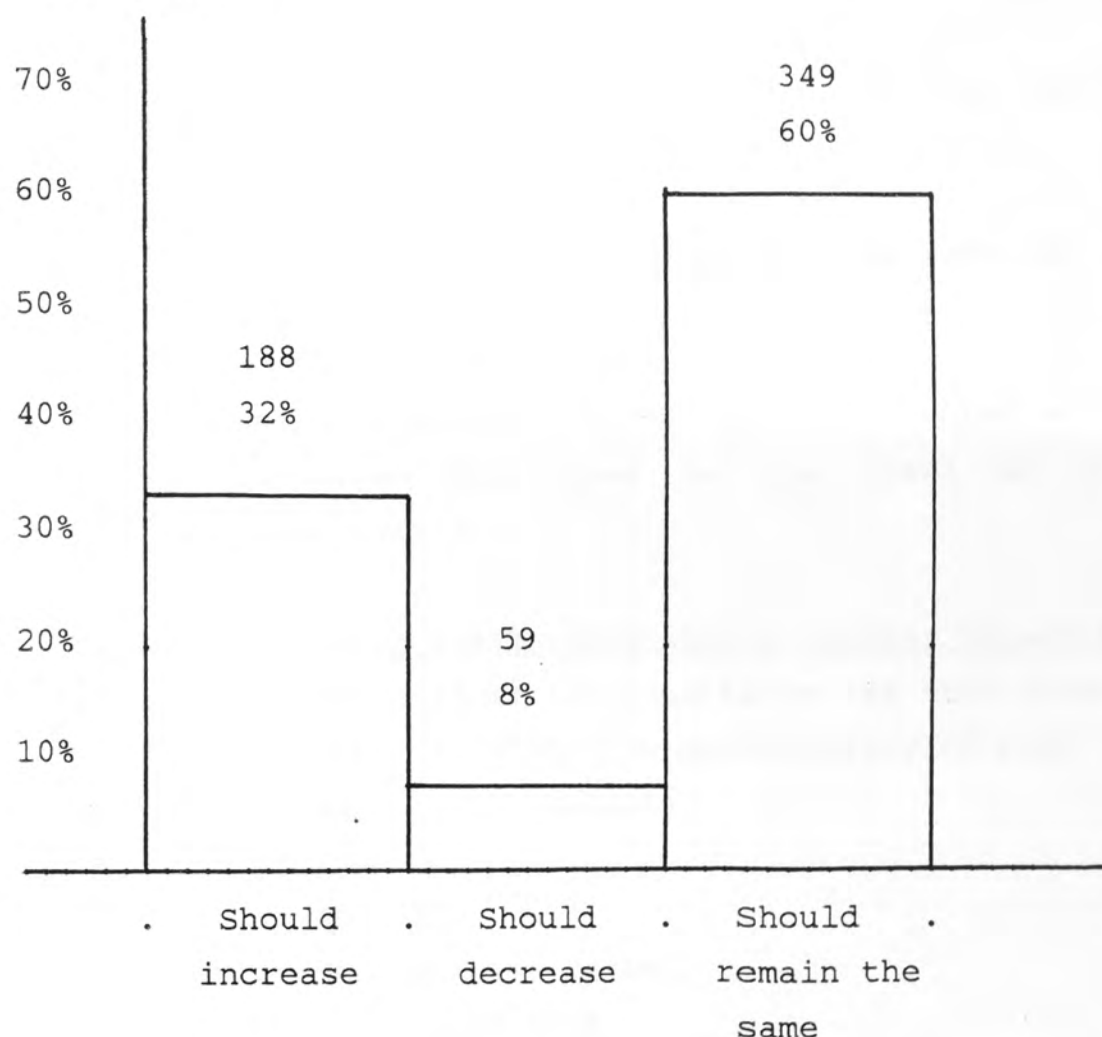
Most respondents gave reasons for their answer (66%, 396); of those who said counter prescribing levels should remain the same, two hundred and twenty-six (57%) expressed satisfaction at the existing level. One hundred and two (26%) stated their confidence in the pharmacist's ability to treat or refer; roughly half of these respondents thought levels of counter prescribing should stay the same; half thought they should increase. Seventy-six (19%) said that an increased level of counter prescribing would mean

fewer trivial symptoms would have to be dealt with at the surgery.

Table 2.1 : GPs' opinions about the extent of  
pharmacists' counter prescribing  
activities

n = 596

Percentage of  
respondents



Respondents' opinions about the level of counter prescribing activities were analysed by the number of years since registration as a doctor; the results are shown in Table 2.2.

Table 2.2 : Views on levels of counter prescribing by  
number of years since registration

n = 434

<u>Views on level of counter prescribing</u>	<u>Number of years since registration</u>			
	10 or less	11 - 20	21 - 30	31 or more
Should be decreased	6 (6%)	9 (8%)	10 (8%)	5 (5%)
Should remain the same	63 (62%)	54 (51%)	71 (54%)	61 (66%)
Should be increased	33 (32%)	43 (40%)	51 (39%)	27 (29%)

Chi-square = 5.71, 3DF      p NS

There was no correlation between the number of years since registration and views on the level of counter prescribing activities.

Symptoms for which pharmacists should counter prescribe

The following list of ten conditions was then presented, and GPs were asked to state the desirability of each being treated initially by pharmacists.

Cough  
Colds and 'flu  
Muscular aches and pains  
Minor skin conditions  
Diarrhoea  
Indigestion  
Mouth ulcers  
Piles  
Cystitis

Respondents were asked to rate each symptom on a scale of 1 to 3, where 1 was least and 3 very desirably dealt with by a pharmacist in the first instance. The objective of this section of the questionnaire was to identify those conditions which GPs felt were appropriately dealt with by the pharmacist. The results from this question are shown in Table 2.3.

Table 2.3 : Respondents attitudes towards treatment of selected conditions by pharmacists

	Very desirable	Not sure	Least desirable
Cough	419 (72%)	106 (18%)	54 ( 9%)
Colds and 'flu	522 (89%)	34 ( 6%)	32 ( 5%)
Muscular aches & pains	427 (73%)	112 (19%)	47 ( 8%)
Minor skin conditions	329 (57%)	151 (26%)	98 (17%)
Diarrhoea	365 (62%)	109 (19%)	112 (19%)
Constipation	366 (63%)	117 (20%)	102 (17%)
Indigestion	284 (49%)	159 (27%)	141 (24%)
Mouth ulcers	439 (75%)	82 (14%)	63 (11%)
Piles	173 (30%)	134 (23%)	274 (47%)
Cystitis	62 (11%)	79 (14%)	429 (75%)

A majority of respondents thought that coughs, colds and 'flu, muscular aches and pains, constipation, mouth ulcers, diarrhoea and minor skin conditions "very desirable" for pharmacists to treat in the first instance, with referral to the doctor if treatment failed in a given time. Indigestion was considered "very desirable" by almost half the GPs who responded. Piles and cystitis were deemed least suitable for initial treatment by the pharmacist, with the former being rated "least desirable" in 47% of

replies and the latter in 75%.

From comments made by respondents, there was concern that laboratory culture tests and antibiotic therapy were desirable in the treatment of cystitis; on this basis, the condition would be inappropriate for treatment by pharmacists. An initial examination and diagnosis was thought essential in suspected haemorrhoids, in order to exclude diseases such as colorectal cancer. Once such possibilities had been excluded, many GPs were in favour of pharmacists continuing the treatment of haemorrhoids.

#### Reclassification of Prescription Only Medicines to Pharmacy medicines

In a related section of the questionnaire, GPs were asked for their opinion about whether selected medicines which are currently Prescription Only Medicines should be reclassified and made available on the recommendation of the pharmacist. This topic has been and remains the subject of a lengthy debate. At the time the questionnaire was being prepared, attempts were being made to establish a procedure whereby pharmaceutical companies and professional bodies could make application for a medicine to be reclassified or deregulated<sup>97</sup>. In the period since the survey was conducted, four medicines; Loperamide, Ibuprofen, Terfenadine and Hydrocortisone 1%<sup>101,102,103,104</sup> have become Pharmacy medicines.

The question was worded as follows; "It has been suggested that certain Prescription Only Medicines could be supplied by pharmacists for short-term treatment of specific symptoms provided that a proper record of the supply was made. What would be your attitude towards the pharmacist supplying the following:

- a. 0.5% hydrocortisone cream or ointment



- b. Neomycin/bacitracin/framycetin in formulations for topical use only
- c. Chloramphenicol eye drops 0.5%
- d. Sulphacetamide eye ointment 6%
- e. Paramol 118 tablets (containing paracetamol 500mg + dihydrocodeine tartrate 10mg). Maximum of two or three days' supply.
- f. DF118 tablets (containing dihydrocodeine tartrate 30mg). Maximum two or three days' supply.
- g. Lomotil tablets (Diphenoxylate + atropine) or codeine phosphate 30mgtablets for diarrhoea; maximum two days' supply
- h. Anusol HC/Scheriproct/Proctosedyl ointment or suppositories for haemorrhoids
- i. Corlan pellets or Adcortyl in Orabase for mouth ulcers.

Respondents were asked for each preparation whether they agreed or disagreed that it should become available in pharmacies, or whether they were "not sure". The results are shown in Table 2.4, below.

Table 2.4 : Respondents' attitudes towards reclassification of selected "prescription only medicines"

	AGREE	NOT SURE	DISAGREE
0.5% hydrocortisone cream or ointment	154 (26%)	103 (18%)	331 (56%)
Neomycin/Bacitracin topical formulations	108 (18%)	112 (19%)	367 (63%)
Chloramphenicol eye drops 0.5%	200 (34%)	87 (15%)	302 (51%)
Sulphacetamide eye ointment	214 (37%)	118 (20%)	246 (43%)
Paramol 118 tablets	242 (41%)	108 (19%)	235 (40%)
DF118 tablets	82 (14%)	104 (18%)	402 (68%)
Lomotil tablets or codeine phosphate 30mg tablets	249 (42%)	101 (17%)	239 (41%)
Anusol HC ointment or suppositories	295 (50%)	114 (19%)	181 (31%)
Corlan pellets or Adcortyl in Orabase	337 (58%)	97 (17%)	150 (26%)

All respondents agreed some of the preparations should be removed from the "prescription only medicines" list, but in general, there was no consensus of opinion. When asked

about Anusol HC and similar products for haemorrhoids, and Corlan pellets and Adcortyl in Orabase for the treatment of mouth ulcers, 50% or more of respondents agreed that these products should be reclassified. For mouth ulcers, this might have been expected from the results of the earlier section where 75% of GPs were in favour of pharmacists treating this condition.

The results for the question about haemorrhoids, where 50% of respondents agreed that pharmacists should be able to recommend products containing steroids and 31% disagreed appears to contradict results from Question 2. In Question 2, 47% of GPs said that haemorrhoids were "least desirable" and 30% "very desirable" for treatment by pharmacists. This apparent discrepancy can be partially explained by additional comments made by GPs, where many stated that an initial examination and diagnosis by a doctor was essential in order to exclude more serious conditions, as previously mentioned. Respondents' agreement that certain preparations should be available for the pharmacist to counter prescribe implies their agreement to pharmacists treating haemorrhoids after such an initial diagnosis.

For many of the listed preparations, there was divided opinion, exemplified by attitudes towards the reclassification of Paramol 118 tablets, where 41% of GPs agreed the product should be reclassified and a similar percentage (40%) disagreed, the remaining 19% were "not sure". There was wider agreement among respondents about DF118 tablets; almost 70% of GPs disagreed that this product should be reclassified. Additional comments showed that about 15% of respondents expressed concern that wider availability of DF118 could lead to more widespread abuse of the drug.

A majority of GPs opposed any reclassification of

chloramphenicol eye drops, 0.5% hydrocortisone cream or ointment, antibiotic creams and DF118 tablets.

The results of this section were analysed according to the number of years the doctor had been registered; no correlation was found between the number of years since registration and the views expressed. When asked if there were occasions on which pharmacists should not supply medicines on the list, 480 respondents replied, of whom 83% (397) answered "yes" and 17% (83) "no". The GPs were asked to give reasons for their answer, and three hundred and thirty did so; the most common reasons are shown in Table 2.5. The possibility of addiction or misuse of medicines was mentioned by ninety-two (28%) respondents. There was also concern that such preparations should not be recommended where the condition was prolonged or recurrent.

Table 2.5 : Respondents views about occasions when pharmacists should not supply the medicines suggested for possible reclassification

n = 330	
Possibility of addiction/misuse	92 (28%)
Where condition is recurrent	
or prolonged	30 ( 9%)
For eye conditions	26 ( 8%)
Difficulty in diagnosis/delay	
in obtaining treatment	24 ( 7%)
Risk of allergy/interaction	17 ( 5%)

Minor ailments and the general practitioner

Respondents were asked how they dealt with minor ailments which were presented at the surgery. One question explored the way in which GPs recommended that a patient should buy a medicine from a pharmacy :

"For minor ailments, do you advise patients to see a pharmacist in order to

a. Purchase a medicine recommended by the pharmacist for a trivial symptom:

Often

Sometimes

Rarely

Never

b. Purchase a named medicine which you have recommended:

Often

Sometimes

Rarely

Never

The results of this question are contained in Table 2.6, and show that GPs recommend the purchase of a named medicine more often than they advise the patient to seek the pharmacist's recommendation. Only 8% (45) of respondents said they never advised a patient to purchase a medicine which they themselves had recommended, compared to 27% (161) who said they never advised a patient to purchase a medicine recommended by the pharmacist.

Table 2.6 : Minor ailments; GPs' recommendations to patients for the purchase of medicines

n = 588

	Recommended by GP	Recommended by pharmacist
OFTEN	148 (25%)	74 (13%)
SOMETIMES	272 (46%)	200 (34%)
RARELY	123 (21%)	153 (26%)
NEVER	45 ( 8%)	161 (27%)



The community pharmacist as a member of the primary health care team

Respondents were asked if, at the present time, they considered the pharmacist to be a member of the primary health care team; the results of this question are shown in Table 2.7.

Table 2.7 : GPS' views on whether the community pharmacist is a member of the primary health care team

n = 588

Pharmacist is a member of the team	350 (60%)
Pharmacist is not a member of the team	238 (40%)

GPs were asked to give reasons for their answer, and one hundred and ninety-five did so. The main reasons given are summarised in Table 2.8, below.

Table 2.8 : Reasons for GPs'views on pharmacists' membership of the primary health care team

(n = 195)

Geographical isolation/lack of communication	104 (53%)
Pharmacists not trained to diagnose/manage illness	29 (15%)
Perception of pharmacist as businessman	16 ( 8%)

Thirteen respondents (7% of those giving reasons for their answer) said they did not believe in the concept of the primary health care team in any case.

Respondents' views on whether the pharmacist was a member of the primary health care team were analysed by the number of years since registration; the results are shown in Table 2.9.

Table 2.9 : Views on the pharmacist as member of the primary health care team by number of years since registration

n = 435

	<u>Number of years since registration</u>			
	10 or less	11 - 20	21 - 30	31 or more
Pharmacist is a member	58 (58%)	64 (61%)	82 (61%)	64 (67%)
Pharmacist not a member	42 (42%)	41 (39%)	53 (39%)	31 (33%)

Chi-square = 2.53, 3DF p NS

More recently registered doctors appeared more likely not to consider the pharmacist as a member of the primary health care team; however, upon statistical testing, this trend was found not to be significant.

Referral of patients by community pharmacists to the GP

The attitudes of respondents to the possible future use of a "notification card" by pharmacists was then explored. Such a card would be issued to a patient requesting advice about symptoms if the pharmacist felt an immediate consultation with the GP was necessary. GPs were asked: "Would you have any objection to a scheme whereby pharmacists sent you a notification card with those patients referred to you by them, giving details of any treatment which the patient had already received from the pharmacy for a particular symptom?" A yes/no answer was requested, and respondents were asked the reason for their objection, if applicable. The results are shown in Table 2.10.

Table 2.10 : Respondents' views on the use of a "notification card"

n = 597

Objections to the scheme	104 (17%)
No objections to the scheme	493 (83%)

Several GPs commented that it would be useful for them to be informed of any over the counter medicines which the patient had already used.

A related question asked respondents if they would be prepared to inform the pharmacist of their findings and treatment, in order to provide some feedback. A small majority, 53% (296) agreed they would be willing to provide such feedback, 47% (264) would not. When asked to state reasons for this unwillingness, two hundred and fifty-eight (98%) did so; the results are summarised in Table 2.11.

Table 2.11 : Reasons why GPs would not be prepared to provide feedback in a "notification card" scheme

n = 258

Problems of patient confidentiality	96 (37%)
Too much time/work; unnecessary paperwork	93 (36%)
Might provide feedback in some cases if patient approved	44 (17%)
Might participate if numbers involved were small	12 ( 5%)
Others	13 ( 5%)

Current practice of GPs in response to opticians' and dentists' referrals

In a related question, respondents were asked if, and how, they currently acknowledged patient referrals from

opticians and dentists, and whether they provided information about their findings. Table 2.12 shows the results for this question.

Table 2.12 : Current practice of GPs in acknowledging referrals from opticians and dentists

n = 542

Acknowledgement only (letter or 'phone call)	95 (18%)
Acknowledgement + information about findings	180 (33%)
No acknowledgement made	267 (49%)

Thus, almost half the GPs said they made no acknowledgement to the referring optician or dentist, who therefore would receive no feedback about whether the patient had seen the GP, or any action which was taken as a result.

GPs' views of an extension of the community pharmacist's role, as presented in simulated practice situations

In order to explore respondents' views on possible extensions of the pharmacist's advisory role in practice, two case study situations were presented. The first involved a visit to a pharmacy during a Saturday afternoon by a mother and her four year-old son, who had earache:

"A four year-old patient with earache is brought by his mother to a pharmacy on a Saturday afternoon, when there is no surgery open. He has a cold, but no history of past respiratory illness or ear problems. What would you wish the pharmacist to do?

1. Refer to GP immediately
2. Supply analgesics and advise to see doctor only if condition deteriorates
3. Ring GP



#### 4. Other (please specify)"

Table 2.13 shows GPs' answers to this question.

Table 2.13 : Ear ache case study; respondents' preferences for pharmacists' action

n = 533

Refer to GP immediately	173 (32%)
Ring GP	153 (29%)
Supply analgesic, refer if condition worsens	190 (36%)
Other	17 ( 3%)

Respondents' opinions were divided; almost one third wished the pharmacist to ring the doctor; a third wanted the child to be referred to the doctor at once, the remaining one third wished the pharmacist to initiate treatment with analgesics, the child only seeing the doctor if the condition worsened.

The case study continued:

"If pharmacists were instructed in the use of an otoscope, would you have any objections to a pharmacist examining the ear drum of such a child, above, with this instrument and where appropriate, if the ear drum was inflamed, supplying an emergency course of antibiotic from a restricted list of antibiotics (with the provision that you were informed of the treatment)? Yes

No

Over half (54%, 307) the GPs stated they would object to such a procedure; the remaining 46% (261) said they would not.

The second case study involved a visit to the pharmacy, again on Saturday afternoon, when the surgery was closed,



by a young woman complaining of cystitis:

"A young woman complains to the pharmacist of cystitis, but is otherwise well. She has suffered in the past and 'an antibiotic' had previously been prescribed by her doctor with success. Again, it is a Saturday afternoon. What would you wish the pharmacist to do?

1. Refer to GP immediately
2. Ring GP
3. Supply potassium citrate mixture and advise to see the doctor only if condition deteriorates
4. Other (please specify)"

Respondents' answers to this question are shown in Table 2.14.

Table 2.14 : Cystitis case study; respondents' preferences for pharmacists' action

n = 532	
Refer to GP immediately	68 (13%)
Ring GP	152 (29%)
Supply Mist.Pot.Cit.; refer if condition worsens	273 (51%)
Other	39 ( 7%)

About half the respondents wished the pharmacist to offer symptomatic treatment, referring the patient to the GP if the condition worsened; almost a third preferred the pharmacist to ring the doctor, and 13% wished the patient to be referred to the GP immediately.

The case study then continued:

"In this case, do you think it would be useful if the pharmacist tested a urine sample for bacteria and protein, using an Ames stick? If the test were positive, would you

think it useful for the pharmacist to prescribe from a restricted list of antibiotic/antibacterial agents, as well as recommending that the patient sees the doctor on Monday?

Yes

No

Over half the respondents (59%, 330) felt this would not be a suitable course of action for the pharmacist to take, 41% (233) agreed with the suggested actions. GPs were asked to give reasons for their answer; of those who had agreed with the prescribing of an antibiotic by the pharmacist, 14% said that prompt relief of symptoms was desirable, so treatment should be started at once; 12% said they themselves would initiate treatment with an antibiotic, and felt it appropriate for the pharmacist to do so. The respondents who disagreed with the plan suggested in the case study cited concern that the pharmacist had no knowledge of the patient's previous history and drug sensitivities (15%) and said that a urine culture was essential before the choice of antibiotic was made (26%).

#### Respondents' views on medicine sales from non-pharmaceutical outlets

The views of respondents on the sale of medicines in supermarkets and other non-pharmaceutical outlets were then explored:

"Many over the counter medicines, including analgesics, cough medicines and cold remedies are available for sale in stores and supermarkets (i.e. non-pharmaceutical premises without the availability of a pharmacist's advice if required). Do you consider this :

Satisfactory

Not sure

Unsatisfactory"

Table 2.15 shows the results of this question.

Table 2.15 : Respondents views on medicine sales from non-pharmaceutical outlets

n = 585	
Satisfactory	223 (38%)
Unsure	102 (17%)
Unsatisfactory	260 (45%)

The answers to this question were analysed by the number of years respondents had been registered medical practitioners; the results are shown in Table 2.16.

Table 2.16 : Respondents views on medicines availability from non-pharmaceutical outlets by number of years since registration

n = 441				
Opinion on availability	<u>Number of years since registration</u>			
	10 or less	11 - 20	21 - 30	31 or more
Satisfactory	52 (50%)	43 (41%)	39 (29%)	32 (33%)
Not sure	19 (18%)	21 (20%)	22 (16%)	13 (14%)
Unsatisfactory	33 (32%)	42 (40%)	74 (55%)	51 (53%)

The GPs were asked to give reasons for their answer; the main reasons given are shown in Table 2.17 .

Table 2.17 : Reasons for respondents' views on medicine sales

n = 343

Those in favour of current situation (223, 38%) ; 110 gave reasons

Encourages self-help and self-medication	30
Drugs on sale in supermarkets are "harmless"/placebos	28
Allows wider availability/freedom of choice	19
Patient can go to pharmacy if advice required	14
Long-standing practice, no problems arising	10
OK as long as range of medicines is controlled	9

Those "unsure" about current situation (102, 17%) ; 2 gave reasons

Encourages self-help, but could lead to abuse	2
---	---

Those who considered the current situation unsatisfactory (260, 45%) ; 231 gave reasons

No skilled advice available except in pharmacies	74
Wider availability may lead to abuse of medicines	57
All medicines sales should be supervised	50
OTC drugs may cause side effects/interactions	37
Concern about advertising/availability	9
Other	4

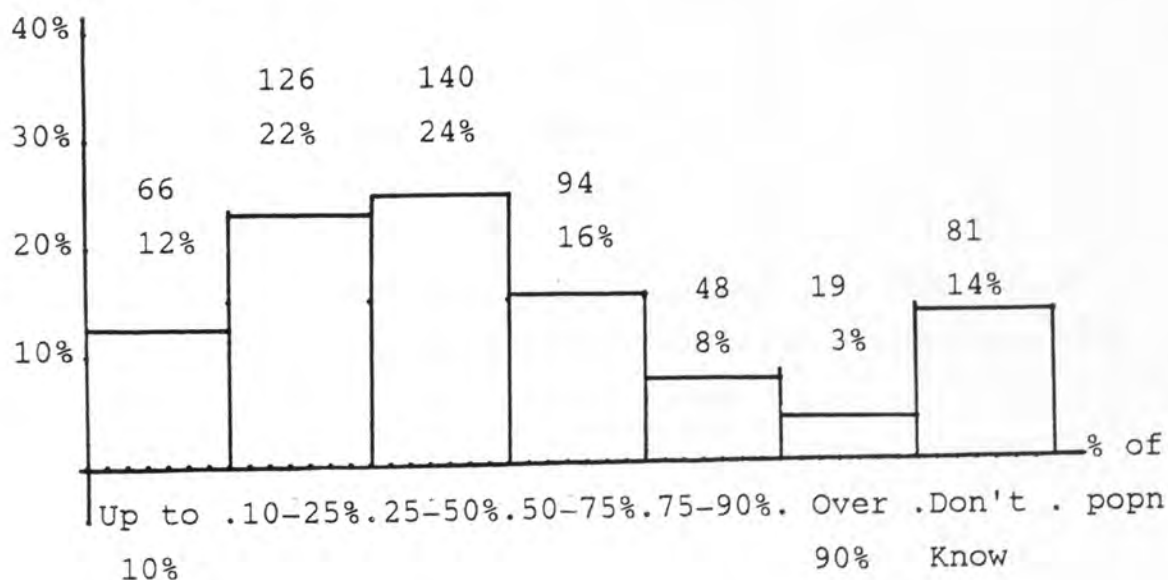
Concern was expressed about the lack of advice available outside pharmacies, and about the possibility of abuse of medicines by those respondents who felt the current situation unsatisfactory. Those who thought the situation satisfactory, on the other hand, expressed support for the encouragement of self-medication by the wider availability of over the counter medicines; some considered such medicines to be "harmless".

Respondents' perceptions of the extent of advice-giving by community pharmacists

The GPs were then asked to estimate the percentage of the population who visit their family doctor for first-line treatment of symptoms, and were given a list of defined percentage bands and the option of "don't know". The results are shown in Fig. 2.5 below.

Fig. 2.5 : Respondents' estimates of the percentage of people who visit their doctor for first-line treatment of symptoms      n = 574

Percentage of respondents





More than half the GPs responding thought that over 25% of the population visited their doctor for first-line treatment of symptoms.

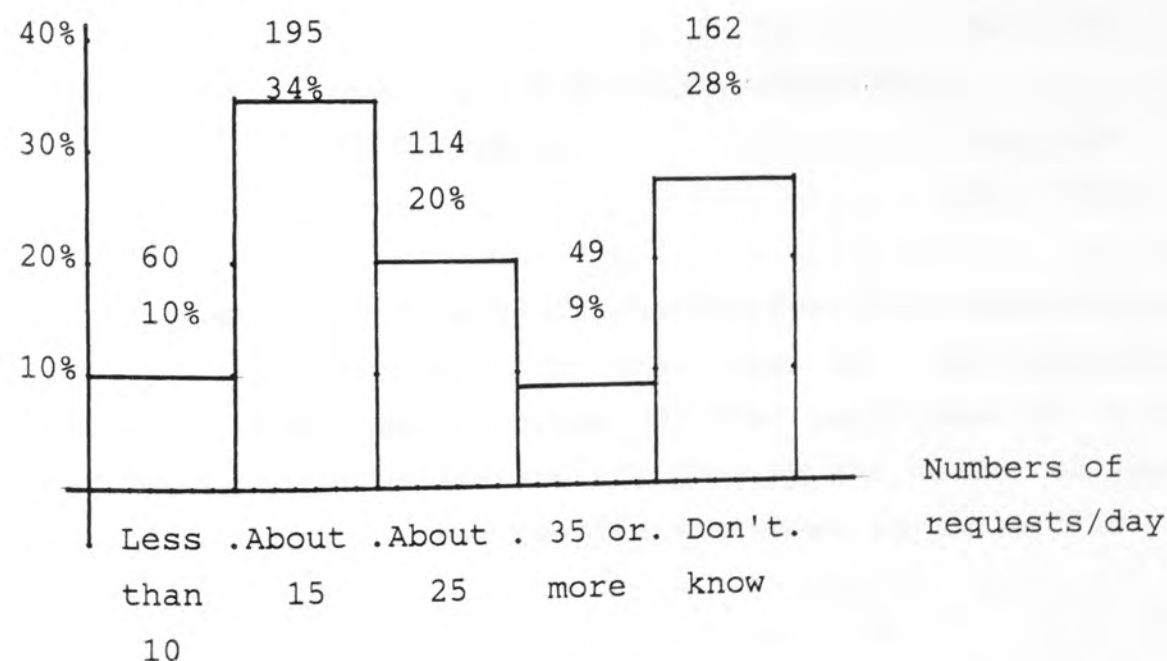
Respondents were then asked about the number of requests for advice about symptoms in pharmacies:

"Approximately how many times per day do you think that the average pharmacist is called upon to counter prescribe for minor ailments in this country?". Respondents could choose a selection of defined ranges of numbers, or the "don't know" option, and the results are shown in Fig. 2.6.

Fig. 2.6 : Respondents' estimates of the number of occasions per day that the "average" pharmacist is asked to counter prescribe

n = 583

Percentage of respondents



### Joint postgraduate meetings between pharmacists and GPs

In the final section of the questionnaire, respondents' views were sought about joint meetings between pharmacists and GPs:

"Do you think the pharmacist could operate more effectively if he had better contact with the doctor as a result of:

- a. Some joint postgraduate (DHSS-sponsored) extension courses on therapeutics? Yes / No
- b. Some joint meetings, such as those promoted by pharmaceutical manufacturers? Yes / No

The results of this question are shown in Table 2.18.

Table 2.18 : Respondents' views about joint meetings for pharmacists and GPs

Joint postgraduate (DHSS-sponsored meetings)	Yes	75%
	No	25%
Joint informal meetings, e.g. those organised by pharmaceutical companies	Yes	68%
	No	32%

There was a high level of support for joint postgraduate meetings, particularly in the form of DHSS-sponsored courses. Respondents' views on the usefulness of joint DHSS-sponsored courses were analysed by the number of years since registration; the results are shown in Table 2.19.

Table 2.19 : Respondents views on joint postgraduate meetings by number of years since registration

n = 411

<u>Views on joint meetings</u>	<u>Number of years since registration</u>			
	10 or less	11 - 20	21 - 30	31 or more
Meetings useful	79 (86%)	88 (85%)	97 (74%)	63 (76%)
Meetings not useful	13 (14%)	16 (15%)	35 (27%)	20 (24%)
Chi-square = 7.57, 3DF      p NS				

There was an apparent trend for more recently-qualified doctors to consider joint meetings to be useful, however this trend did not achieve statistical significance.

#### ASSOCIATED SURVEY OF PROFESSORS OF GENERAL PRACTICE

A copy of the questionnaire was sent to all Professors of General Practice medicine in medical schools in the UK. If the school of medicine had no designated Department of General Practice, the questionnaire was sent to the Department of Social or Community Medicine. After one follow-up letter, respondents from fourteen of the twenty-three schools (61%) had replied.

#### Non-respondents

The nine non-respondents were from Departments of Community Medicine, in medical schools where there was no Department of General Practice, and all sent letters

explaining why they had not completed the survey. In each case, the reason given was that no member of staff in the Department was currently working in clinical practice; they thus felt it inappropriate to take part.

#### Opinions on levels of counter prescribing

The results from this question were:

Should be increased 7 (50%)

Should stay the same 6

Should be decreased 1

Of those who felt levels should be increased, reasons given were that pharmacists' skills were currently wasted, that a wider range of drugs could safely be managed by pharmacists, that self-care should be encouraged, and that most symptoms were straightforward and trivial in origin.

Where respondents felt that levels should stay the same, reasons given were that there was no evidence on which to recommend a change, the commercial/ethical conflict, that pharmacists' training was still inadequate, and that there was a risk that serious underlying conditions might be missed, although there was no evidence of harm to date.

#### Conditions for treatment by pharmacists

A majority of respondents favoured coughs, colds, flu, muscular pain, minor skin conditions and mouth ulcers for treatment by pharmacists. The results from this question are shown in Table 2.20 below.

Table 2.20 : Associated survey of Professors of General Practice; Respondents' attitudes towards treatment of selected conditions by pharmacists

n = 13 \*

	Very desirable	Not sure	Least desirable
Cough	8 (61%)	4	1
Colds/'flu	13 (100%)	.	.
Muscular aches/pains	10 (77%)	2	1
Minor skin conditions	10 (77%)	3	.
Diarrhoea	6	3	4
Constipation	5	5	3
Indigestion	5	5	3
Mouth ulcers	10 (77%)	3	.
Piles	2	2	9 (70%)
Cystitis	.	2	11 (85%)

\* One respondent considered "informed self=treatment" to be appropriate in all cases.

The pharmacist as a member of the primary health care team

Five respondents considered the pharmacist to be a member of the primary health care team; nine (64%) did not. The main reason given by respondents was that regular communication and contact was needed; the comments made are summarised by those of one respondent who said "Physical and philosophical integration is required". Three respondents said that a change in the pharmacist's objectives, i.e. away from the profit motive, was required.



## Reclassification of Prescription Only Medicines to Pharmacy Medicines

Respondents' views on the possible reclassification of selected POMs are shown in Table 2.21, below.

Table 2.21 : Associated survey of Professors of General Practice Respondents' attitudes towards reclassification of selected Prescription Only medicines

n = 14

	Agree	Not sure	Disagree
0.5% hydrocortisone cream/oint.	5	1	8
Topical neomycin/bacitracin	4	3	7
Chloramphenicol eye drops 0.5%	4	.	10 (71%)
Sulphacetamide eye ointment 6%	4	7	1 (2 n/a)
Paramol Tablets	6	4	4
DF118 Tablets	3	4	7
Lomotil or codeine tablets	7 (50%)	5	2
Anusol HC or similar	9 (64%)	.	5
Corlan/Adcortyl in Orabase	10 (71%)	3	1

As in the main survey, there was no consensus view about reclassification for most of the medicines selected. A majority of respondents agreed that Lomotil Tablets, steroidal preparations to treat haemorrhoids, and steroidal preparations to treat mouth ulcers should be supplied by pharmacists. For topical hydrocortisone, topical antibiotics, chloramphenicol eye drops and DF118 tablets, fifty per cent or more of respondents disagreed that supplies should be made by pharmacists.

### Medicines sales from non-pharmacy outlets

Most respondents (9, 75%) thought the current situation for sales of medicines to be satisfactory; three considered it unsatisfactory and two gave no response. Giving reasons for their answers, there was general agreement that self-medication should be encouraged, and that patients should have access to medicines. Three respondents expressed the view that medicines available from non-pharmacy outlets did not require professional advice/supervision, since they were "simple medicines" or "only placebos"

## DISCUSSION

### Response rate and sample

A response rate of 40% was obtained for the main study. This was considered to be satisfactory; it is known that, when the subject of the survey is not of direct or immediate interest to the respondents, response rates are typically 40-60%<sup>140</sup>, and postal questionnaires are known to produce lower rates of response than personal interviews; rates from 20% to 70% are commonly reported for postal surveys<sup>139,140,141,142</sup>. Interest in, or familiarity with, the topic under investigation, is known to be a major factor in determining the rate of return<sup>140</sup>. Doctors are the recipients of numerous requests to participate in surveys from pharmaceutical companies and researchers seeking to examine aspects of medical practice among others, and it therefore seems likely that saturation with such requests may result in lower rates of completion.

Follow-up letters, replacement questionnaires and reminder telephone calls have been found to increase response; these were not practicable in this case since the questionnaire was anonymous, and no means of identifying the respondents was included.

Non-response bias was considered by checking respondents' characteristics against those known for the sampling frame; age and gender. The respondents were found to be representative of all age groups; the proportion of female respondents was found to be lower than is the case nationally (13% compared to 19% nationally)<sup>147</sup>. Since one in five GPs returned the questionnaire anonymously, it is possible that more females than males did so. There was no significant difference between the responses achieved in the three geographical areas covered by the survey.

#### The level of counter prescribing activity

A majority of GPs (six in ten) were in favour of the current situation being maintained; approximately three in ten wished to see an increase in the level of counter prescribing by pharmacists. A survey of thirty-seven general practitioners in Edinburgh in 1980 obtained similar findings<sup>136</sup>. In a later market research survey carried out by Taylor Nelson<sup>137</sup>, it was found that 57% of doctors agreed with the statement "pharmacists have a greater role to play in advising people with trivial illness". However, the Taylor Nelson survey specifically asked about trivial illness, rather than the pharmacist's role in dealing with the full range of symptoms presented. Very few respondents felt that the level of counter prescribing should be decreased.

These findings indicate that GPs accept and support the role of the community pharmacist in dealing with minor illness in the community, and that there is some scope for extending this role. Of those respondents who wanted to see an increase in counter prescribing, the main reason given was that such an increase would mean fewer trivial symptoms would be presented at the surgery. Cartwright, in two surveys of general practitioners<sup>14,15</sup> found that GPs estimated that 33% of their consultations were for "trivial" conditions, of these, more than half were for minor ailments, so it might be expected that there would be support for some "filtering" of symptoms. Although the majority of respondents favoured maintenance of the status quo, it was encouraging that there was significant support for role extension.

In the associated survey of Professors of General Practice Medicine, there appeared to be more support for an extension of the pharmacist's counter prescribing role; 50% of respondents felt the level should be increased. This finding among influential opinion-makers in general practice is encouraging.

#### Treatment of symptoms by pharmacists

Coughs, colds, 'flu, muscular aches/pains, constipation, diarrhoea, minor skin conditions and mouth ulcers were all selected by a majority of GPs as being suitable for treatment by pharmacists; all these conditions have been shown to be commonly-presented in community pharmacies<sup>61</sup>, and GPs supported their management by pharmacists. Cystitis and haemorrhoids were deemed least suitable for treatment by the pharmacist on the grounds that an initial

diagnosis had to be made before treatment could be initiated. In later sections of the questionnaire, it became apparent that GPs considered mid-stream urine testing to be necessary in the diagnosis of cystitis, and examination to be essential before any symptomatic treatment for haemorrhoids was begun. However, respondents supported the continued treatment of haemorrhoids by pharmacists once more serious conditions had been excluded by investigations.

The Professors of General Practice agreed that coughs, colds and 'flu, muscular pain, skin conditions and mouth ulcers were suitable for treatment by pharmacists, but were less favourable disposed than respondents in the main survey to pharmacists' treatment of diarrhoea, constipation and indigestion, and they were even more strongly opposed to haemorrhoids and cystitis being treated by pharmacists.

#### Reclassification of "prescription only medicines" to "pharmacy" medicines

In 1983, a circular was issued by the DHSS, outlining the procedure by which medicines might be transferred from the "POM" list; since that time, four medicines have been deregulated or reclassified to become "pharmacy" medicines; they are loperamide, ibuprofen, terfenadine and topical hydrocortisone 1%<sup>101,102,103,104</sup>. Fig.2.7 shows medicines reclassified in several countries since 1980.



Fig.2.7 Reclassification of POM medicines in selected countries (Source : WHO report 1985<sup>107</sup>

INGREDIENT	COUNTRY	YEAR OF RELEASE
Hydrocortisone 0.5% topical	USA	1980
	New Zealand	1982
	New South Wales	1983
Hydrocortisone 1% topical	Sweden	1983
	Denmark	1984
	UK	1987
Ibuprofen oral	UK	1983
	USA	1984
Loperamide oral	UK	1983
Nitrazepam oral	New South Wales	1984
Temazepam oral	New South Wales	1984
Clotrimazole vaginal	France	1982
Econazole vaginal	France	1982
Miconazole vaginal	France	1982
Dextromethorphan oral	Sweden	1983
Tioconazole oral	USA	1983
Terfenadine oral	UK	1983

Thus, it was of interest to seek GPs' opinions on the removal of medicines from "POM" control. The section of the questionnaire which dealt with GPs' views on this subject showed a division of opinion. All respondents agreed that some of the medicines on the list should be sold through pharmacies, but there was disagreement over which ones, and a large differences in the "agreed" and "disagreed" selections of individual respondents. However, there were several areas where a consensus view emerged. Over half the GPs were in favour of steroid-containing treatments for mouth ulcers and

haemorrhoids becoming "P" medicines; this was also the case in the survey of Professors of General Practice, who agreed, in addition, that Lomotil Tablets should become a P medicine. These findings seem surprising, since haemorrhoids were considered "least desirable" for treatment by pharmacists in an earlier section of the questionnaire. The probable explanation for this apparent discrepancy is that GPs stated an initial diagnosis was important in suspected haemorrhoids, after which the condition could be managed by the pharmacist. Since pharmacists have neither the training nor the facilities to enable such a diagnosis, medical involvement was thought essential.

For most of the other POM medicines, there was either opposition to deregulation, or no consensus view. In the survey of Professors of General Practice Medicine, a similar division of opinion emerged, and respondents showed a cautious approach to possible deregulation of POM medicines.

Other workers have shown that community pharmacists strongly support the extension of the "P" medicines category<sup>12,108,109</sup> by moving items from the "POM" list. It might be anticipated that GPs could interpret the reclassification of medicines as a reduction in their control over the supply of potent medicines.

When asked to give reasons for their views, concern was expressed about over-use of steroids and antibiotics, and about possible misuse of painkillers such as Paramol (then Paramol 118) or DF118. It is of note that Paramol 118 could be sold from pharmacies until relatively recently<sup>148,149</sup>, and there appears to be no evidence of consequent misuse through pharmacy supplies; the manufacturers requested the product's reclassification.

Respondents' concern about possible misuse of DF118 appeared to be the major reason for two-thirds of GPs disagreeing that it should become a "P" medicine; 40% disagreed that Paramol 118 should be reclassified, possibly reflecting respondents' perceptions that this preparation was less subject to misuse. Over-prescribing of antibiotics is already recognised as a problem in medical practice; however, the availability of topical antibiotic preparations would not appear to warrant such concern, unless the respondents viewed such availability as the "tip of the iceberg" and thought deregulation of oral antibiotics might follow. It is noteworthy that antibiotic creams and ointments containing neomycin/bacitracin/framycetin mixtures are widely available in the US, where there is no equivalent of the "P" category, with no evidence of subsequent problems.

Since the survey was conducted, hydrocortisone 1% ointment and cream has become available for sale from pharmacies; over half the GPs who responded were opposed to hydrocortisone 0.5% becoming a "pharmacy only" medicine. Again, it might be speculated that respondents feared that more potent steroids might be deregulated following milder steroids. An argument put forward against the deregulation of topical hydrocortisone was that the preparation might be devalued in the eyes of the public if it could be bought over the counter<sup>105,106</sup>. However, the counter argument is that patients might be reassured of the safety of a preparation if it was more widely available<sup>106</sup>.

It might have been postulated that the number of years since registration might have a bearing on respondent's views on reclassification of medicines; this was not found to be the case.

### Minor ailments and the general practitioner

Respondents were asked about the frequency with which they recommended patients to buy over the counter medicines to treat minor ailments, and appeared to have a higher opinion of their own recommendations than those of pharmacists, since the recommendation to purchase a medicine which they had recommended was said to be more frequent than that to seek the pharmacist's advice. One survey found that 58% of GPs claimed that during the previous two weeks, they had recommended patients to purchase medicines from pharmacies<sup>16</sup>, so the numbers of patients involved are potentially large.

### Is the community pharmacist a member of the primary health care team?

Although a majority of respondents considered the community pharmacist to be a member of the team, 40% did not; in the survey of Professors of General Practice Medicine, these proportions were reversed. It should be borne in mind that the original definition of the primary health care team did not include the community pharmacist<sup>150</sup>, and this may have influenced some replies. However, the most common reason given by GPs who did not consider the pharmacist a team member was isolation of pharmacists from the doctor's premises, away from the team's base.

The results from the survey of Professors of General Practice showed the reverse of those from GPs; almost two-thirds of respondents did not agree that the pharmacist was currently a member of the primary health care team. This is an interesting and disappointing finding, since these respondents are known to be opinion leaders in general practice medicine and are responsible for the



teaching of general practice medicine to undergraduate medical students.

#### Emergency treatment by community pharmacists

The results from the section of the questionnaire where GPs were asked to comment on two potential pharmacy practice situations, showed a reluctance for pharmacists to initiate treatment in the two scenarios presented, when the GP could not be readily contacted. In the first case, that of a child with earache, over half the respondents, and in the second, a woman with cystitis, 40% of GPs wished the pharmacist to refer the patient to the doctor, or to contact the doctor before starting any therapy. Since the patients involved were said to have visited the pharmacy on a Saturday afternoon, these answers seemed to present somewhat unrealistic and impractical solutions, since contacting the GP would be difficult. It might be considered encouraging that about one third of respondents in each case said they wanted the pharmacist to ring them about the problem, indicating a willingness to discuss possible options with the pharmacist. On the other hand, the doctor might wish to be contacted so that he could then instruct the pharmacist what to do.

However, a significant minority (46%) said they would not object to the pharmacist (if trained in the use of an otoscope), examining the affected ear and prescribing from a restricted list of antibiotics. In the second case study, about 40% of respondents thought it would be reasonable for the pharmacist to test the urine of the woman with cystitis for the presence of bacteria and protein, then prescribe an emergency supply of antibiotics. These findings imply that in some defined circumstances,



general practitioners would regard the supply of "POM" medicines more favourably than for general recommendation.

#### Medicines sales from non-pharmacy outlets

Almost half the respondents thought the ability to purchase medicines from non-pharmacy outlets was unsatisfactory; expressing concern about the lack of advice available outside pharmacies, and the increased possibility of misuse/abuse of medicines. There was no statistically significant correlation between the number of years the practitioner had been registered and the views expressed. About 40% of respondents thought the current situation was satisfactory, commonly-cited reasons being the encouragement of self-help and freedom of choice. However, it was disturbing that twenty-eight respondents said that drugs on sale in supermarkets were "harmless" or simple placebos, when this is not the case. Among the Professors of General Practice Medicine, there was strong support for maintaining the current situation. The view expressed by some respondents that GSL medicines are "harmless" is disturbing.

#### GPs' perceptions of the extent of self-medication

Research has shown that of those who experience symptoms, few will visit their doctor<sup>19,32,33</sup>. Over half the GPs in this survey thought that 25% or more of the population did so, thus over-estimating the role of the doctor in dealing with patients' symptoms.

When asked to estimate the numbers of patients seeking the pharmacist's advice about symptoms; almost half the GPs thought the figure to be fifteen occasions or fewer per pharmacy per day. Research findings suggest a figure of

between twelve and twenty-five patients a day, so respondents estimates were often reasonably close.

#### Increasing contact between pharmacists and GPs

Respondents were very supportive of the concept of joint educational meetings for pharmacists and GP; three quarters favoured such meetings. There was no significant correlation between the number of years since registration and views about joint meetings. These results are encouraging, and suggest that GPs might be willing to support joint postgraduate meetings.

#### Communication between general practitioners and other health professionals

The suggestion that a semi-formal referral route between pharmacists and GPs should be established was well-received; more than three quarters of respondents had no objections to such a scheme. The provision of feedback to the pharmacist appeared to be a less acceptable concept to general practitioners, just over 50% said they would be willing to provide such information. Potential problems of patient confidentiality were the most commonly-cited reason by doctors who said they would not provide feedback; concern about the increased bureaucracy which such a system might produce was cited almost as frequently. The issue of confidentiality must be addressed if pharmacists are to have access to some levels of information in patients records via computer.

Findings from a related section of the questionnaire showed that only half the respondents made any contact with dentists or opticians who had referred patients. It is interesting that a similar proportion said they would be willing to provide pharmacists with information about their

findings.

Following the positive response to the concept of a new referral system between community pharmacists and general practitioners, it was decided to conduct a pilot study to examine such a scheme in practice. This study involved the use of a notification card as a novel means of conveying information from the community pharmacist to the general practitioner, and is detailed in the next chapter.

### CHAPTER 3

#### A STUDY OF THE USE OF A NOTIFICATION CARD : A NOVEL MEANS TO CONVEY INFORMATION FROM THE COMMUNITY PHARMACIST TO THE GENERAL PRACTITIONER

There is often little regular communication between the community pharmacist and the general practitioner. This situation results partly from the geographical isolation of the majority of community pharmacists from the surgery premises of general practitioners. The law currently requires the community pharmacist to remain on the pharmacy premises to provide supervision of dispensing of prescriptions, of sales of Pharmacy Only medicines as well as sales of medicinal products advised in response to symptoms. If the pharmacist is not present, these activities cannot continue<sup>92</sup>.

The inclusion of community pharmacists in regular meetings with local GPs is rare. One of the reasons for this is the need to comply with legal requirements to remain on their pharmacy premises, although other factors govern relationships between pharmacists and doctors; some of these are listed in Fig. 3.1 (below). The Nuffield Report recognised this lack of communication and commented that many contacts between pharmacists and GPs are "On the initiative of the pharmacist, after the prescription has been made, and in circumstances which are likely to put the GP on the defensive"<sup>3</sup>, i.e. when the pharmacist contacts the doctor to clarify any query arising from a prescription.

Fig. 3.1. Factors which may affect communication between  
community pharmacists and GPs

Geographical isolation/separation of pharmacy and surgery  
premises

Inter-professional boundaries

Legal requirement for pharmacists to remain on their  
premises

Different working patterns of pharmacists and GPs

Pharmacies' links with several surgeries

Lack of recognition of pharmacist as health care team  
member

Armitage<sup>151</sup>, in a major study of collaboration in primary health care, between GPs, district nurses and health visitors, defined a range of levels of interaction between health professionals. The scale took the form of a numerical series; the higher the number, the higher the level of communication and collaboration, and the greater the interaction between the two agents. The five categories are defined and clarified in Figs. 3.2 and 3.3 below<sup>151</sup>. Armitage's classification may be applied to communication and collaboration between community pharmacists and general practitioners.



Fig. 3.2 FIVE POINT SCALE OF COLLABORATION

1. You and X work independently with no communication between you, except perhaps through a third party.
2. Communication between yourself and X is limited to brief, formal contacts containing a minimum of information.
3. Communication between yourself and X occurs on a fairly regular basis, with appropriate consultation and referral of patients.
4. There is constant contact between yourself and X concerning patients held in common, resulting in a high level of joint working.
5. There is a high level of joint working, not only between yourself and X, but including all other workers in the primary health care setting, as appropriate.

The above classification forms a useful base from which to analyse interactions between pharmacists and GPs. Level 2, that of "Encounter" is defined by Armitage as a situation where communication is limited to brief, formal contacts containing a minimum of information, and not resulting in feedback. This definition which might well be used to describe many pharmacist/GP contacts. A more desirable objective might therefore be to change the nature and frequency of contacts between pharmacists and doctors so that they resembled level 3 or even level 4 communication. The higher levels in Armitage's ranking are characterised by constructive discussions and the provision of feedback. The challenge for pharmacy and medicine is to explore means of achieving better communication because ultimately, this could produce improved patient care.

Fig. 3.3 A TAXONOMY OF COLLABORATION

Stages of Collaboration	Definitions	Applications to primary health care
1. ISOLATION	Agents who never meet, talk or write to one another	e.g Health visitors, GPs and district nurses working independently with no communication between them except through a third person
2. ENCOUNTER	Agents who encounter or correspond with others but do not interact meaningfully	Contact between professionals is limited to brief, formal actions (e.g. referrals) which contain a minimum of information and do not result in feedback
3. COMMUNICATION	Agents whose encounters or correspondence includes the transfer of meaningful information	Communication between professionals occurs which is helpful and constructive (e.g. appropriate referral & consultation)
4. COLLABORATION	Agents who act on that information sympathetically, participate in patterns of joint working	2-way discussion between professionals occurs regularly, resulting in a high level of joint working
5. COLLABORATION	Organisation in which the work of all members is fully integrated	Stage 4 collaboration including all workers who provide primary health care to a patient/client population

The community pharmacist has the responsibility to ensure that all medicines dispensed on prescription are at an appropriate dose and are safe for the patient to take or use. There is little doubt that the Migril case<sup>152</sup> confirmed that responsibility. Whilst the recognition of the pharmacist's role in the safe supply of medicines was welcomed by the profession of pharmacy, the Migril case also had the effect of further casting the pharmacist in the role of "policeman" as far as some doctors were concerned. For such doctors, their only contact with the community pharmacist was after having made a prescribing error or writing an incomplete or vague prescription; necessitating a telephone call from the pharmacist, often during surgery hours and even interrupting consultations for necessary clarification of the prescriber's intentions.

Such a situation is hardly conducive to positive communication between members of the two professions, or to the potentially valuable cooperation and collaboration which could exist. Regular meetings between pharmacists and other members of the primary health care team might be a valuable step forward, but are often precluded by some of the factors discussed earlier; geographical isolation, separate premises, and legal constraints which make the pharmacist's presence in the pharmacy necessary. The findings of the survey of GPs opinions about counter prescribing showed that some respondents (around one third) did not even consider the pharmacist to be a member of the primary health care team, and of these, half said it was because of pharmacists' separation from the premises where other team members were based. In fact, the pharmacist was not included in the original definition of the primary

health care team<sup>150</sup>, and the Royal College of General Practitioners' response to the government's Primary Health Care green paper confirmed that the definition of the team still excluded the community pharmacist, although the College recommended closer contact between pharmacists and GPs<sup>153</sup>. The aim of this study was to design and develop a novel system of communication between the community pharmacist and the GP. The scheme would be based on the use of a specially-designed card which would be completed by the pharmacist and sent to the GP as a means of conveying information. The project was initiated following discussions between representatives of the Pharmaceutical Society of Great Britain (PSGB) and the Royal College of General Practitioners (RCGP). Contact was established with the Department of General Practice Teaching and Research at the University of Birmingham Medical School for a collaborative study. Regular meetings were held with the Professor of General Practice during the planning and implementation of the research programme.

### Objectives

The objectives of the study were to:

1. Design a card for completion by the pharmacist when a patient was advised by him/her to see the doctor.
2. Instigate a pilot study to test the usefulness and acceptability of such a card.
3. Investigate the use of the card in the reporting of suspected adverse drug reactions from the community pharmacist to the GP.
4. Assess the acceptability and potential value of such a card to patients, doctors and pharmacists.



The value of the notification card was perceived to lie in its ability to convey information in the following situations:

a. Encouraging patients to see their GP

There is no published research data on the proportion of patients who, having been advised by the pharmacist to seek a consultation with their doctor, actually do so. In fact, it would be difficult to conduct such research because seeking the necessary patient details to permit future identification and follow-up (i.e. name, address, doctor's name) might itself alter the essentially informal nature of the pharmacist's discussion with the patient, and by formalising the consultation, would to some degree affect the patient's subsequent behaviour.

Currently, pharmacists may subsequently receive feedback about the outcome of the advice they gave in response to symptoms described if the patient returns with a prescription or later tells the pharmacist what happened following their visit to the pharmacy for advice. For reasons which have been discussed earlier, patients sometimes seek the pharmacist's advice having made a decision not to consult their doctor. These reasons include not wanting to be a nuisance to the doctor in case their condition turns out to be trivial, or a perception that the time involved to make an appointment and travel to the surgery is such that self-care or reassurance seems a better option. Although patients often self-diagnose the cause of their symptoms, and may perceive them not to be of importance, this perception may, of course, be incorrect. This emphasises the need for pharmacists to give strong encouragement to seek medical advice if it is considered



necessary.

It was thought that the notification card might serve a useful role in encouraging and reassuring such patients that a consultation with the doctor was needed, thus possibly making them more likely to see the GP. The authority of the pharmacist's advice, supplemented by a written card might be seen by patients as confirmation that their symptoms warranted further investigation.

#### b. Aid to adverse drug reaction reporting

Suspected adverse drug reactions are known to be under-reported, despite attempts to encourage doctors to utilise the yellow card reporting system. The inclusion of yellow cards in the British National Formulary and in FP10 prescription pads from 1986<sup>154</sup>, to facilitate reporting, resulted in an increase in the number of reports<sup>155</sup>, but there was still concern about low levels of reporting.

Pharmacists are not formally involved in the reporting of adverse drug reactions in this country, and are not able to submit reports directly to the Committee on Safety of Medicines (CSM). However, research has documented the participation of hospital pharmacists in the reporting process<sup>156</sup>, and found that pharmacists made a valuable contribution to such reporting. Currently, community pharmacists have little or no activity in adverse drug reaction reporting, and although several studies to investigate their potential role have been suggested, none have been initiated.

The question of whether pharmacists should be able to report suspected reactions directly to the CSM has been a matter of debate for a number of years, but always, a decision against direct reporting has been

reached<sup>157,158,159,160</sup>. It is recognised that the pharmacist may be the first, and sometimes, the only health professional to whom patients may describe symptoms which indicate a possible adverse drug reaction, and there is particular concern that the yellow card system does not make sufficient provision for the reporting of adverse reactions to over the counter medicines. One example of how such reactions have not been reported to the CSM is the case of hallucinations resulting from the use of pseudoephedrine in children, at appropriate doses. Publicity about this adverse reaction resulted in the discovery that the reaction was well-known among parents, doctors and pharmacists, but had never been reported to the CSM<sup>161</sup>.

Patients who purchase over the counter medicines and subsequently experience an adverse reaction are perhaps unlikely to report this to their doctor unless their symptoms worsen to the extent that a consultation becomes necessary.

The introduction of a reporting card, where the pharmacist was able to convey information to the GP about suspected adverse reactions to prescription or over the counter medicines might encourage the doctor to complete a yellow card report. Such a system would be particularly valuable for the transmission of information about over the counter medicines. While not entirely satisfactory from the point of view that the pharmacist would not have ultimate sanction over submissions to the CSM, nevertheless, community pharmacists would potentially have a system into which they could input information from patients which previously went unreported.

The West Midlands Adverse Drug Reaction Reporting Centre expressed interest in the project, and after an initial

meeting to discuss their possible involvement, an agreement was reached that the pharmacist based in the Centre would follow up those Notification Cards which were marked as Suspected Adverse Drug Reactions to determine if a yellow card had later been completed and sent to the Centre by the GP. The Centre had been designated as a Regional Reporting centre by the CSM, so that all reports from West Midlands doctors are sent there.

c. Improving communication between community pharmacists and GPs

Problems in communication have already been discussed, and the scope for improvement seems self-evident. The notification card was considered to be an additional channel for effective and constructive communication for the benefit of the patient.

d. Establishment of guidelines for appropriate referral patterns from community pharmacists to GPs

The PSGB guidelines on responding to symptoms include a list of symptoms which indicate serious underlying pathology and therefore require immediate referral<sup>82</sup>. However, there is no published work to identify which symptoms are commonly referred to the GP in practice. Therefore, it was hoped that the notification card would generate data about the conditions which practising pharmacists considered warranted immediate medical attention.

Further development of the PSGB guidelines might then be possible, perhaps in conjunction with the Royal College of General Practitioners and the British Medical Association

(BMA), to provide more guidance to pharmacists about appropriate referral policies, particularly for symptoms less serious than those already identified by the PSGB Working Party. The project might enable cataloguing of those symptoms most commonly referred by participating pharmacists. Concurrently, the attitudes of the patients' GPs towards the pharmacist's course of action could be assessed; i.e. did the doctor feel the patient required a medical consultation, or would it have been appropriate for the pharmacist to treat the condition?

#### METHODOLOGY

The pilot study was conducted in two stages; the first was planned to include the pharmacists and doctors in a small town in the West Midlands, the second, several groups of community pharmacists and GPs in urban areas of Birmingham.

##### Card Design

A draft version of the notification card was designed (See Appendix 3.1). The form consisted of a printed top paper copy and an identical card copy. The two were stapled together, and carbon paper was supplied to produce a duplicate of each card issued for the pharmacist's files. After the pharmacist had completed sufficient detail about the patient to enable follow-up, the top copy would be given to the patient, who would hand it to the doctor during the surgery visit. The details required were:

- i) Patient's name
- ii) Address
- iii) Doctor's name

A brief description of the patient's symptoms was

needed, also, details of any known OTC medication which had been used by the patient. A short section for the pharmacist's additional comments was included. Each form had space for the issuing pharmacy's stamp, and the forms were serially numbered, with a different code for each participating pharmacy. The notification card was then used on a trial basis in the three pharmacies where the pilot study was to be conducted. The card was later amended prior to the commencement of the study, following comments from the pharmacists using the card, and experience in attempting to trace patients at the local surgery.

#### GP Questionnaire

In order to obtain data on GPs opinions about the notification cards they received, in particular, about their value, a short questionnaire was devised and included on the reverse side of the Card. (See Appendix 3.2) The GP would enter the date of the consultation so that the time between card issue and the patient seeing the doctor could be established. This was followed by a series of short questions with boxes for the GP to tick, to simplify and facilitate rapid completion. The doctor was asked whether he/she considered the symptoms reported by the patient to be significant, i.e. could the pharmacist, in the GP's opinion, have reasonably dealt with the condition without immediate referral?

A series of options then followed for the doctor to state what action/s had been taken ;

Examination and/or investigation

Start medication (later amended to start/change medication)

Advice without a prescription



Referral to a consultant or other health professional.

Finally, the GP was asked to state whether or not they had found the notification card to be helpful. This brief questionnaire was intended to document the action/s taken and give a subjective and qualitative assessment of GPs' attitudes towards the cards.

### Issue of Cards

The notification card was designed for issue to patients whom the pharmacist thought should seek immediate medical advice. The following guidelines were developed and a copy given to each pharmacist. A card might be issued when the symptoms described by the patient were thought by the pharmacist to indicate:

1. A potentially serious condition which required a medical consultation as soon as possible.
2. An adverse drug reaction might be their cause.
3. A lack of improvement despite treatment with an appropriate over the counter medicine.
4. An insufficient reason to call for an immediate visit to the doctor, but advice was given by the pharmacist that if the condition did not improve within a few days, an appointment should be made to see the doctor.
5. An unsuitable case for treatment with over the counter medicines.

### Pilot Study (Phase One)

The three pharmacists and ten general practitioners at the two local group medical practices in a small town in Staffordshire were invited to participate in the study, and all agreed to do so. One of the three pharmacies was an

independent, the other two were branches of a small and large multiple chain respectively. Permission was sought and obtained from the superintendent pharmacist of the large multiple for the branch manager to participate in the project. One of the pharmacists (the independent proprietor) was known to the researchers through involvement in previous research projects, and was keen to incorporate the notification card into his practice.

The protocol for the study was developed in collaboration with the Professor of General Practice Teaching Medicine at Birmingham University, and was agreed as follows:

The pharmacist would complete and issue a card where he thought it appropriate. The completed version would be given to the patient, when they were advised to seek an appointment with their GP. The patients would be asked to give the card to the doctor at the beginning of the consultation.

The doctor would be asked to complete the brief questionnaire on the reverse side of each form received, then store the completed card in the patient's notes.

The researchers would visit the participating pharmacies at regular intervals to collect the pharmacists' copies of issued cards. At the surgeries, the patients' notes would be examined to see if the card was present. From the patient records, details of any visit to the GP at or near to the time of card issue would be recorded, as well as information about any medication prescribed, or further referrals or investigations initiated.

#### Amendment of notification card design

The Card design was amended (See Appendix 3.3) following its initial use, to incorporate the following changes:

a. The patient details required were more clearly defined, as it became obvious that to enable patients' notes to be recovered, complete details of title, forename or initials, surname and full address were essential. A box was added for the pharmacist to state the age of a child, where applicable.

b. A box was added, marked "SADR" (Suspected Adverse Drug Reaction), which the pharmacist could tick. This would identify for the GP that the symptoms might be due to a possible adverse drug reaction without unduly alarming the patient by including the phrase in full.

c. For OTC medication, two sections were incorporated. The first was for any medicine(s) which the patient was already using, the second for any which the pharmacist recommended.

d. The GP questionnaire was slightly amended to include "start/change medication" in the list of options, the doctor could delete the inappropriate option. Thus, changes in existing therapy could be identified.

e. The amended card was printed in a non-carbon copy format to make completion by the pharmacist easier, and printed on blue paper/card to make it more distinctive. This would enable easier location of the card in the patients' notes. The patient would be given the card, and the top paper copy retained by the pharmacist.

Following the initial letter of invitation to take part in the project, a meeting was arranged, to which all GPs and pharmacists were invited. The meeting was incorporated into a regular weekly meeting at one of the practices,

ensuring that many of the GPs would be present. Seven of the doctors and all three pharmacists attended; a short presentation was made by the researchers to describe the purpose of the study, demonstrate the cards, and explain to the participants their role, and what would be required of them.

The practice manager from one of the group medical practices was present at the meeting and she agreed to make certain that the practice receptionists were aware of the study, and that they would tell any patient presenting a card when making an appointment, that it should be given to the doctor. The Senior receptionist at the second practice was visited, and she agreed to inform the other reception staff about the project.

Each pharmacist and GP was sent a letter to remind them of the main points discussed, and to act as an aide-memoire, particularly for the GPs, about what they were required to do if they received a card. The pharmacies and surgeries were visited initially at three-monthly, then six-monthly intervals to collect copies of cards issued and determine the outcome. The study continued for eighteen months, during which time thirty-nine cards had been issued.

Details of cards issued by the three pharmacists are set out in Table 3.1 below.

Table 3.1: Notification card pilot study, Phase 1

Card issue

Rate of Card Issue

Independent Proprietor	Pharmacy A : 15 Cards	0.83/month
Large Multiple Branch	Pharmacy B : 19 Cards	1.10/month
Small Multiple Branch	Pharmacy C : 5 Cards	0.30/month

Total 39 Cards

The numbers of cards issued remained steady throughout the study period, but the figures were lower than had been expected. Previous work had shown that an average of 2 patients per pharmacy per day were referred to the doctor<sup>52</sup>, so the rate of card issue was expected to be potentially of the order of 5 to 10 per week. Discussion with participating pharmacists during the regular meetings held when the cards were collected indicated that the reason for so few cards being issued was that the pharmacists were being very discerning in their use. They reserved the cards for what they saw as special cases, and did not want to devalue their use in the eyes of either patients or doctors. The lowest card issue was from pharmacy C, which had three different pharmacist managers during the study period. While all three were telephoned and visited to discuss the research, the first volunteered the information that he always treated patients, never needing to refer them to the doctor, and the third declined to participate. This pharmacy therefore cannot be considered to have participated fully in the study.



Checking of records at the surgeries showed that twenty-five of the thirty-nine patients (64%) patients who had been given a notification card had subsequently visited the doctor. Ten notification cards were recovered from the patients' notes (40% of the twenty-five issued). Table 3.2 summarises data regarding card issue and patient details.

Table 3.2 : Notification card pilot study, Phase 1  
Outcome and patient details

Total number of cards issued	= 39
GP consultations	= 25 (64%)
Notification card recovery	= 10 (40%) of 25
SADR's	= 9 (23%)
Prescriptions issued	= 19 (76%)

Patient details:

Adults 37 (Male 16 (43%); Female 21 (57%))  
Children 2

The low rate of card recovery was a matter for concern, and the study protocol was amended for the next stage of the project, following comments from receptionists at both practices that several patients had shown the notification card when booking an appointment but had not brought it with them when they subsequently saw the doctor. The modified protocol was designed to ensure that the receptionist would take the card and attach it to the front of the patient's notes so that it would go direct to the doctor. It was hoped that this change would increase the

percentage of cards recovered in later stages of the project.

Table 3.3 shows the symptoms for which cards were completed.

Table 3.3: Notification card pilot study, Phase 1  
Symptoms for which cards were issued

n = 39

Symptoms	No. of Cards	No. of GP Visits
Gastrointestinal	2	.
Respiratory Tract	2	1
CNS	2	2
Genito-Urinary	6 (15%)	3
Musculoskeletal	1	1
Eye	8 (20%)	2
Ear	.	.
Mouth/Throat	2	2
Skin	13 (33%)	11
Other	3	3

The most common symptoms for which a notification card was issued were skin, eye and genito-urinary. Interestingly, when GP visits were correlated with symptoms, most patients with skin conditions who were given a card (11 of 13) subsequently saw the doctor, while only a minority of those with eye conditions (2 of 8) did so.

Table 3.4 classifies the medicines which were prescribed for the nineteen patients who received a prescription. Only one of the nineteen items could have been supplied without a prescription, which seems to indicate that the pharmacist had referred these patients appropriately since most (95%) of the prescribed items could not have been recommended in the pharmacy. Six patients (24%) were not given a prescription, but two were referred to a consultant for further investigation.

Table 3.4: Notification card pilot study, Phase 1  
Prescriptions issued

(n = 19)

POM Items

Oral antibiotics	6	(30%)
Steroid creams	6	(30%)
Antibiotic eye preparations	2	(10%)
Benzodiazepines	1	( 5%)
Diuretics	2	(10%)
Non-steroidal anti-inflammatory drugs	1	( 5%)

Non-POM Items

Keratolytic	1	( 5%)
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Table 3.5 shows the duration of symptoms for the 39 patients who were issued with a notification card.

Table 3.5: Notification card pilot study, Phase 1

Duration of symptoms

1 - 3 days	19 (48%)
4 - 6 days	9 (23%)
1 week +	11 (28%)

Almost half the patients had been experiencing their symptoms for three days or less.

Nine of the thirty-nine cards issued were for suspected adverse drug reactions, which are summarised in Table 3.6. Of these, six went to see their GP; four had their medication stopped or changed. Two of these four patients were referred to a consultant for further investigation. None of the six cases resulted in a yellow card report being received by the Adverse Drug Reaction Reporting Centre. This issue will be discussed further later in the chapter.

Table 3.6: Notification card pilot study

Suspected adverse drug reactions

n = 9

Suspected agent	Symptoms	Visit to GP	Outcome
1. Albucid eye drops 20%	Burning/stinging on application	No	Unknown
2. Tegretol 200mg Tablets	Generalised rash	Yes	Steroid cream prescribed
3. Burinex K Tablets	Dry mouth	Yes	Diuretic changed
4. Pyridoxine Tablets (OTC)	Skin rash	No	Unknown
5. Osmosin Tablets	Confusion	Yes	Osmosin stopped*
6. Moduretic Tablets	Photosensitivity	No	Unknown
7. Moduretic Tablets	Cramp - legs & feet	Yes	Medication continued
8. Chloroquine Tablets	Headache	Yes	Chloroquine stopped *
9. Moduretic Tablets	Itchy skin	Yes	Moduretic stopped

\* = referred to consultant



### Attitude of GPs to the notification card

Ten notification cards were recovered from the patients' notes; the GPs involved had completed the brief questionnaire on the reverse side of the card and considered the patients' symptoms to have been significant in all ten cases. The card was stated to be helpful in nine of the ten cases.

Informal discussions with GPs at both group practices indicated that they thought the notification card to be a useful innovation. They expressed the view that the cards had involved them in very little extra work (a worry expressed by GPs who completed the postal questionnaire; 36% of respondents thought such a card would involve doctors in too much paperwork). In particular, the section of the card which provided details about any medicines the patient had already taken to treat their symptoms was found to be especially useful. The doctor found it helpful to have accurate details about any preparations which had been tried unsuccessfully, so that an alternative could then be prescribed.

One GP commented that one of the cards he had received had not been particularly helpful and he had filled in the questionnaire to that effect. He felt on that occasion the card had not contained any information which could not have been easily obtained from the patient but otherwise thought the cards were useful.

All the GPs would have been happy for the project to continue.

### Attitude of Pharmacists to the notification card

Two of the three pharmacists were in favour of the card and were willing to continue its use (the third had moved to the area during the project but declined to take part). One of the two who were keen to continue the project said he had become more convinced of its usefulness as the study progressed and that he regarded it as an 'extra tool' for pharmacists to have at their disposal.

Discussions during the project showed a general agreement among participating pharmacists that referral to the doctor did not necessarily mean a card would be issued. Cards were not usually issued where a medicine was recommended; such patients were advised to seek the doctor's advice in a few days' time if the symptoms did not improve.

There seemed to be a strong feeling that the card should only be used in urgent, unusual or exceptional circumstances. Two reasons for this were advanced: firstly, that the cards should not become considered a nuisance or commonplace at the surgery; and, secondly, that the importance of the card and a visit to the GP would be more strongly emphasised to the patient if it became known as an occasional or special course of action for the pharmacist to take. The pharmacists felt the card's effectiveness in encouraging patients to see their doctor might be reduced if they were issued every time a consultation with the GP was advised.

## Pilot Study, Phase 2.

The aim of this part of the study was to test the use of the notification card in an urban area. It was decided that the second stage of the pilot study should be to test the use of the notification card in Birmingham in an attempt to identify differences and problems involved in card issue in a large city. Three group practices of GPs in different parts of the city were approached via the Professor of General Practice. All agreed to participate. The first point of contact in this phase of the study was the GP practices, since they had cooperated in previous projects. None of the ten local pharmacists were known to the researchers. All ten were approached. Classified by ownership type, they consisted of:

Independent Proprietors	5
Branches of Small Multiples	4
Branches of Large Multiples	1

The pharmacists were contacted by telephone, the purpose of the study was briefly explained, and an appointment was made for a visit by the researcher to supply the notification cards and file, and additional written information. Eight of the ten pharmacists agreed to take part and were visited.

<u>Area</u>	<u>Participation Rate</u>
1	3/4 pharmacies
2	2/3 pharmacies
3	3/3 pharmacies

A personal letter was sent to each general practitioner, preceded by a brief telephone call to explain the aims of the project, and the GP's role. Each doctor was sent a written summary of the pilot project, including the results of Phase 1 of the research to date. Written instructions were also provided for the GPs, as a reminder that when a card was received, the questions on the reverse side should be completed and the card stored in the patient's notes.

The three practice managers were telephoned then sent written information summarising the project and their part in it. The practice managers agreed to inform full and part-time reception staff of the study protocol. A brief aide memoire was provided for the reception area to remind staff that all cards should be attached to the patients' notes.

A meeting was held with the Senior Partner of one of the group practices (also Director of the Birmingham RCGP Research Unit) to discuss the study, at which two of the practice GPs were seen, and the practice manager, which helped to establish a good working relationship.

## Results

One month after the study had begun, none of the eight participating pharmacies had issued any cards. The pharmacists stated that the main reason for this was that on those occasions when card issue would have been appropriate, the patients were not registered at the local group practice, and that while their pharmacies had significant passing trade, many of the local residents worked outside the area, and vice versa.

By the third month of the study, several further problems had been encountered. One pharmacist had sold his business and left the area; the business was purchased by a small multiple company which already owned one pharmacy in the area and whose pharmacist had declined to take part in the study. The original premises of the small multiple closed down and no longer functioned as a pharmacy business. In the same area, another pharmacist retired, and his successor chose not to participate in the project, thus leaving one pharmacist of three who initially took part.

In Area 2, one pharmacist left; her successor did not wish to be involved with the project. Another of the pharmacies was being run by a series of locums, with consequent lack of continuity, and difficulties in establishing and maintaining contact, leaving one participating pharmacist.

In Area 3, two of the three pharmacists had agreed to take part, but had not issued any cards and it appeared that enthusiasm was lacking. None of the pharmacists



(four, at this stage) seemed enthusiastic or keen to progress with the study, and the researcher found great difficulty in stimulating interest. Following discussions with the Professor of General Practice, it was decided that for one area, the agreement of all the surrounding GP practices to take part in the project would be sought. It was hoped this might decrease the problem of patients visiting the pharmacy who were not registered with the local group practice.

Although most of the doctors contacted agreed to participate, the initial problems were not overcome. The pharmacist involved, although claiming keenness on the occasions of the researcher's visits and telephone calls, issued only three cards during the ten months for which the project continued.

A reluctant decision was made to abandon this phase of the research, and to continue the work in a smaller, well-defined community, where it would be feasible to continue to visit the participating pharmacists and doctors regularly to maintain frequent contact.

### Pilot Study, Phase 3

During the second phase of the pilot study, the researchers were contacted by a community pharmacist who had heard of the project and was keen to be involved. His practice was in a small town, and he had taken part in previous practice research, including projects of his own in addition to those associated with the University. A meeting was arranged with the three local community pharmacists, at which all agreed to take part in the study. The eight GPs in the two group practices also agreed to participate, and both surgeries were visited by the

researchers prior to commencement of the study, in order to meet the doctors, practice managers and reception staff.

Each GP was then sent a personal letter setting out the study protocol and enclosing a sample notification card. Letters and sample notification cards were also sent to the two practice managers to reaffirm the important role which they and other reception staff had to play in the project by ensuring that notification cards reached the GPs.

During the study, pharmacists were visited every three months, followed by visits to the surgeries; lunchtime meetings were held with the pharmacists to provide immediate feedback about some of the cards they had issued. Two to three weeks later, a short written report was sent to each pharmacist, documenting outcomes of cards which they had supplied to patients (see Appendix 3.4, for example). It was hoped that this written contact, in addition to visits and regular telephone calls to check with progress on the project would be effective in stimulating and maintaining interest. After each surgery visit, short letters were sent to the GPs and practice managers summarising the results in terms of patients who saw the doctor, and card recovery. These were intended to act as a reminder that the project was ongoing, and to stimulate interest.

## Results

After the eighteen month study period, a total of eighty-one notification cards had been issued by the three pharmacists. The numbers of cards from each pharmacy are shown in Table 3.7.

Table 3.7 : Pilot study, Phase 3; card issue

			Rate of card issue
Pharmacy A	34 cards	Independent Proprietor	1.9/month
Pharmacy B	20 cards	Independent Proprietor	1.1/month
Pharmacy C	27 cards	Branch of Large Multiple	1.5/month

Total 81 cards

The town where the study took place attracts many tourists, particularly during the spring and summer months, and it is of note that nineteen cards (23%) were issued for patients who were not resident in the town; a high proportion of these registered temporarily with a local GP after being advised to do so by the pharmacist.

Follow-up of patients to whom cards had been given showed that sixty of the eighty-one (74%) subsequently saw the doctor. Forty-six (77%) notification cards were recovered from the patients' medical records at the surgeries. Table 3.8 summarises data about the cards supplied, comparing them with results from the first phase of the pilot study.

Table 3.8 : Notification card pilot Study, card issue, outcomes and patient details

	Phase 1	Phase 3
Total of cards issued	39	81
GP consultations	25 (64%)	60 (74%)
Cards recovered	10 (40%)	46 (77%)
Prescriptions issued	19 (76%)	47 (78%)

Patient details

Adults	Male 16 (43%)	Male 31 (44%)
	Female 21 (57%)	Female 39 (56%)
Children	2	11
Temporary residents	.	19
		Adults :
		7 male, 9 female
		Children 3

The rate of card recovery, at almost 80%, was twice as high as was achieved in the first phase of the study. Some possible reasons for the increase will be discussed later.

Table 3.9 is a comparison of symptoms for which cards were issued in Phase 1 and Phase 3 of the study.

Table 3.9 : Notification card pilot study, symptoms for which cards were issued (Phase 1 and Phase 3)

Symptoms	No. of cards	No. of cards
	Phase 1	Phase 3
Gastrointestinal	2	8
Respiratory tract	2	10 (12%)
Central nervous system	2	5
Genito-urinary	6 (15%)	2
Musculo-skeletal	1	1
Eye	8 (20%)	14 (17%)
Ear	.	9 (11%)
Mouth/throat	2	4
Skin	13 (33%)	24 (30%)
Other	3	3
	Total 39	81

The commonest symptoms which prompted card issue in Phase 3 were : skin (30%), eye (17%), respiratory tract (12%) and ear (11%). The ranking of the first two was the same in both phases of the study, and the proportions of cards issued were similar.

Table 3.10 shows the correlation between cards issued and GP consultations from Phase 3 of the research.



Table 3.10 : Notification Card pilot study (Phase 3),  
Analysis of symptoms presented and subsequent visits to GP

Symptoms	No. of cards issued	No. of GP visits
Gastrointestinal	8	3 (38%)
Respiratory tract	10	6 (60%)
Central nervous system	5	3 (60%)
Genito-urinary	2	2
Musculoskeletal	1	1
Eye	14	12 (86%)
Ear	9	9
Mouth/throat	4	3
Skin	24	18 (75%)
Other	3	3

Most of the patients who were supplied with a card for a skin condition went on to visit the GP in both phases of the study. However, for the other main group of symptoms, eye, conditions, a higher proportion of patients subsequently saw the doctor in Phase 3.

The medicines which were prescribed for the forty-seven patients who received a prescription are shown in Table 3.11. Oral antibiotics were the most commonly-prescribed medicine, as in Phase 1. Eight patients (17%) were prescribed items which were available for over the counter purchase.

Table 3.11 : Notification card pilot study (Phase 3),

Prescriptions issued

n = 47

POM Items

Oral antibiotics	13 (28%)
Topical antibiotics	6 (13%)
Antibiotic eye preparations	11 (23%)
Topical steroids	8 (17%)

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39

Non-POM Items

Topical antibacterials	3
Oral decongestants	3
Antacids	1
Antihistamines	1

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8

Table 3.12 : Notification card pilot study (Phase 3)

Duration of symptoms

n = 81

1 to 3 days	28	(35%)
4 to 7 days	20	(25%)
1 week or more	29	(36%)
Not known	4	( 5%)

Five of the eighty-one cards were issued for suspected adverse drug reactions; they are summarised in Table 3.13. Follow-up by the Regional Adverse Drug Reaction Reporting Centre showed that none had resulted in the completion of a yellow card by the general practitioner.

Table 3.13 : Notification card pilot study (Phase 3)

Suspected adverse drug reactions    n = 5

Suspected agent	Symptoms	Visit to GP	Outcome
1. Merbentyl Syrup	sore mouth	No	Unknown
2. Asilone Suspension	constipation	No	Unknown
3. Dibenylene/atenolol/ isosorbide	dizziness & vertigo	Yes	Medication changed *
4. Tegretol 200mg tablets	itchy rash	Yes	Medication continued
5. Prempak tablets	GI discomfort	Yes	Medication continued

\* = referred to consultant

### Attitude of GPs towards the notification card

Analysis of GPs' comments showed their reaction to the card to have been generally favourable. Table 3.14 summarises the data from GPs' responses, comparing the results with those from Phase 1 of the study. In the majority of cases, symptoms had been considered significant and the card helpful.

Medication was prescribed for 36(78%) patients; advice without a prescription was given in 13% of cases.

Informal discussion with several GPs during visits to the surgeries confirmed that the card had been received favourably; one doctor even expressed the view that he would have liked to receive a larger number. Several of the doctors commented that regular communication with local pharmacists was made difficult by their location away from pharmacy premises, so that although they (the doctors) occasionally visited the pharmacies, the lack of more regular contact and time for discussion was regretted by them.

Table 3.14 : Notification card pilot study; GPs' response

Phase 1 and Phase 3

	Phase 1	Phase 3
	n = 10	n = 46
Symptoms significant : Yes	10	39 (85%)
No	.	7 (15%)
Card helpful : Yes	9	38 (83%)
No	1	5 (11%)
No answer	.	3 ( 6%)

Course of action taken

Examination/investigation	4	14 (30%)
Advice only	2	6 (13%)
Start/change medication	8	36 (78%)
Referral	2	2 ( 4%)

N.B. More than one course of action might be taken

DISCUSSION

A specially-designed NHS form, GOS 18 (See Appendix 3.5) is available for use by ophthalmic opticians, when referring patients back to their general practitioner. Discussion with several opticians revealed that they tend to use the form only occasionally, since there are relatively few times when they examine a patient who needs to see a doctor urgently. Nevertheless, the opticians felt that the form served a useful purpose.



The format consists of three sections, the optician keeps one copy, a second is sent to the GP with the patient, and a third is posted directly to the doctor, in case the patient did not seek a consultation immediately, or forgot to take the form with them when they went to the surgery. The results of this pilot study of the use of a notification card for pharmacists indicate that the card was found useful by pharmacists, and was well-received by patients and doctors. The discerning use of the card by the pharmacists who took part enables a parallel to be drawn with the GOS 18 form; regarded not as an everyday piece of documentation, but available for cases considered unusual or requiring extra caution.

The rates of both card issue and recovery were higher in the third phase of the study than in the first. The larger number of cards supplied may have been due to greater enthusiasm for and commitment to, the project in its third phase, which the researchers sought to maintain by face to face meetings, regular telephone contact and provision of written summaries of progress and results. This system of maintaining contact was developed in an attempt to overcome some of the difficulties encountered in the earlier stages of the research, and appears to have helped to sustain the motivation and enthusiasm of participating pharmacists. Perhaps it is also noteworthy that in the second phase of the project, none of the pharmacists were previously known to the researchers, and had not shown interest or been involved in other research projects to develop practice.

The higher proportion of cards recovered later in the pilot study seems to have been due to a combination of two factors; firstly, the amended protocol which meant the card was more likely to reach the GP and secondly, the establishment and maintenance of good relationships with the two practice managers, recognising the important role they played in dealing with patients arriving at the surgery. The achievement of a good working relationship with surgery staff was essential in ensuring that notification cards presented at the surgery when appointments were made were attached to the patient's notes and hence, readily seen by the doctor. Earlier in the project, patients were asked to show the card to the receptionist when making an appointment (indications were that they did so) and then bring the card back with them when they came to see the doctor. Few cards were recovered, and it may be that having made an appointment, patients saw no further use for the card.

For future research projects of this type, the following factors have been identified as contributing to a successful outcome:

1. Establishment and maintenance of regular contact with participating pharmacists by meetings, telephone and letter.

2. Provision of regular reports to show the research progress.
3. Maintenance of regular contact by letter with GPs taking part.
4. Recognition of the role of surgery staff in the research protocol, so they can be made to feel involved and committed to the project.

The study established that most patients (two thirds) who were given a notification card and advised to see their doctor actually did so. Possibly these patients felt an obligation to follow the pharmacist's advice because they had been given a card, and this cannot be quantified but it is encouraging that the majority of patients accepted the advice given.

The transfer of information via the notification card is of a more positive nature than the type of contact commented upon in the Nuffield Report, involving prescription queries. The card offers the opportunity for the pharmacist to be an active provider of information of potential use to the doctor during the consultation.

#### Adverse Drug Reactions

Fourteen of the one hundred and twenty cards issued were for suspected adverse drug reactions. That none of these resulted in the completion of a yellow card by the doctor is, at first sight, disappointing. However, given further consideration, it is important to note that many of the suspected reactions had been previously reported and were

well-known, leading to their inclusion in manufacturers and other literature. The reporting of reactions which have already been recognised has not always been encouraged by the CSM, who give priority in their instructions for doctors to the reporting of reactions to new drugs, or those to older drugs which have not been reported previously. This might explain why such reactions did not prompt a yellow card report when they occurred during this research. A notable exception was the suspected reaction to Osmosin, which was, at that time, a relatively new drug. Staff at the West Midlands Adverse Drug Reaction Reporting Centre commented that none of the GPs who participated in the study were known to them as regular reporters of adverse reactions; indeed, some had not submitted any yellow card reports since the Centre's inception in 1982.

In nine of the fourteen cases where a card was supplied for a suspected adverse drug reaction, the patient subsequently saw the doctor; in four of these, the medication was changed, and in two, the patient was referred to a consultant. In the longer term, use of the notification card might stimulate discussion between the pharmacist and the GP about possible adverse reactions, and even, perhaps, to joint completion of yellow cards. Throughout the study, such discussion took place on only one occasion, where the pharmacist was concerned about a possible reaction to Osmosin and telephoned the doctor after the card had been given to the patient.

Since five of the fourteen patients did not consult the doctor, the question must be asked whether a third copy of the card should be sent directly to the GP, who will be unaware of the problem unless the patient goes to see him.

### Symptoms for which cards were issued

The range of symptoms which prompted the issuing of a card reflect those which have been identified by other researchers as being most commonly presented in community pharmacies, although ranking order was different. Respiratory and GI tract problems are most commonly presented<sup>61</sup>, whereas in the notification card study, skin and eye conditions were responsible for half of the cards supplied.

Almost half the patients (43%) issued with a card had already used at least one medicine to treat their symptoms before seeking the pharmacist's advice. As no research work could be identified which had examined the area of medicine use by patients who later sought advice from the pharmacist, further research could determine whether the percentage is similar for all patients who seek the pharmacist's advice about their symptoms, rather than a sub=group.

Most cards were given to patients with eye or skin conditions, suggesting two possible hypotheses; firstly, that pharmacists do not feel they have sufficient training to identify the cause and offer treatment, and, secondly, that the pharmacist may have been able to identify a cause, but was unable to recommend appropriate treatment because of POM restrictions. From the follow-up of patients who saw the doctor, many were prescribed antibiotic eye preparations (mainly chloramphenicol drops or ointment), and topical steroids for skin conditions. Hydrocortisone 1% ointment and cream has since become available over the counter for limited indications and it would be of interest



to examine any change in the pattern of card issue in future research. A recent survey showed that 77% of community pharmacists were in favour of chloramphenicol eye drops and ointment being deregulated to P medicines<sup>108</sup>, suggesting that pharmacists have identified a need or demand for such treatment.

#### GPs' reaction to the notification card

In most cases, GPs noted that they considered the symptoms to have been significant and had found the card helpful. Arguably, participants in surveys might tend to give the response which they think the researcher would like to receive, but in this case, the written comments were supplemented by informal discussions, which confirmed that the cards had been favourably received by the GPs.

Information on the card which was thought to be of particular use was that relating to medicines already used to treat the symptoms, thus allowing the doctor to prescribe an appropriate and alternative therapy. Although it might be said that patients could just as easily pass on this information themselves, the GPs felt that patients could not always remember the name/s of the medicines, and the doctors were not always aware of constituents of branded OTC medicines. Further, it was thought useful that when given a card, the doctor was immediately made aware that the patient had seen the pharmacist, who considered a medical consultation was desirable, and had made an assessment of the patient's symptoms. This would undoubtedly contribute to a better relationship between community pharmacists and general practitioners.

The use of the notification card to "flag up" the pharmacist's concern about a suspected adverse reaction seemed to be well-received by the doctors. A comment was made in two cases that the pharmacist might identify a connection between symptoms and current drug therapy which the patient might not have otherwise recognised, or might not have thought to report to the doctor.

### Feedback to pharmacists

During the study, regular feedback was provided to the pharmacists about the cards they had issued, and the outcomes. The pharmacists found the GPs' positive response to the cards encouraging, and the fact that most symptoms were considered "significant" reaffirmed their decision to advise referral.

On some occasions, patients had returned to the pharmacy with a prescription, or if the patient was well known to the pharmacist, they might return to the pharmacy to recount what had happened, but on many occasions, as in usual pharmacy practice, they would not otherwise have received feedback. Information about medicines prescribed for patients was of particular interest.

The possibility of continuing provision of feedback after the end of the research project was carefully considered and discussed. Possibly the doctor might return the completed card direct to the pharmacist, although maintaining confidentiality might present problems. This potential barrier was recognised by GP respondents to the earlier questionnaire, where 37 % of GPs, when asked why they felt feedback inappropriate, cited confidentiality as the reason. However, this might be overcome by omitting the patient's full name and address

from the card; these details were only necessary to allow the patient's records to be traced by the researcher. Further discussions are to be held to explore the idea of the provision of feedback, with its potential of two-way transfer of information.

Pharmacists are health professionals and deal with confidential information already, indeed, the maintenance of confidentiality is required of pharmacists. Therefore, any argument that pharmacists might not adhere to these standards should be refuted.

#### Attitude of pharmacists towards the card

All three pharmacists in Phase 3 participated fully in the project, and all maintained their involvement and expressed enthusiasm for the project. One pharmacist has decided to continue to use the card, despite the ending of the formal research involvement. The pharmacists commented that the cards seemed to have been well-received by patients; they thought that patients appreciated the extra interest being taken in their symptoms which was demonstrated by the pharmacist taking time to complete a card for them.

The pharmacists reported that the card had been particularly useful for visitors to the area who were on holiday and not registered with a local doctor. The notification card served as an introduction to the doctor and alerted the GP that the patient had already seen the pharmacist.

One pharmacist was keen to continue using the notification card after the end of the project, and was not concerned about the question of feedback; commenting that the card itself would help to form the basis for the

initiation of more communication and discussion with local GPs. The same pharmacist suggested that either the notification card could be modified or a different form designed for pharmacists to provide information to doctors which was not related to a patient's request for advice about symptoms. Such information might refer to drug interactions or new drug information; in effect, a kind of "memo" from the pharmacist to the doctor. In its written form, it could be posted to the GP, or it might be sent as electronic mail, since the development of information technology continues at a rapid rate. Such a card would promote the active provision of information from pharmacist to doctor.

#### The notification card in urban areas

The failure of the notification card in urban areas on this occasion gave rise to extensive discussions about ways of overcoming the difficulties encountered. One possible method might be to seek support from local medical and pharmaceutical committees inviting all general practitioners and pharmacists in one city to take part. Pharmacists in any part of the city could then issue a card to any patient registered with a GP in that city. The logistics of visiting large numbers of surgeries would have to be overcome, or it might be possible to collect information over the telephone. The use of electronic means of transfer of information might be possible. Asking the GP to simply return the completed card by post would not suffice because information would not then be obtained about those patients who saw the doctor, and whose notification cards were not recovered. If the arrangement for using notification cards were to be given semi-official



status, that might influence more apathetic pharmacists to participate. The problem of high turnover of pharmacists in urban areas seems potentially difficult to overcome in the context of a relatively short-term project of, say, one to two years.

#### Future research with the notification card

The possibility of extending the project to further explore patients' and GPs' attitudes was discussed. Pharmacists could give cards alternately to those patients whose symptoms were thought to warrant referral and some who were not. GPs could be informed that some patients would be issued with cards for which the symptoms were not considered to require referral. The perceptions of GPs and pharmacists about which symptoms were "significant" could then be compared from their respective completion of the cards. This proposal was later rejected on ethical grounds; advising patients to see their GP unnecessarily was considered to be both unreasonable and potentially alarmist.

The results of the notification card study indicate that GPs perceived referral by pharmacists to be appropriate. No evidence was found that patients were referred unnecessarily to the doctor, with symptoms which could readily have been treated by the pharmacist. Initial doubts about the acceptability of the card to patients, because of its potential to formalise the pharmacist/patient consultation proved to be unfounded. Patients appeared to welcome the card, and the accompanying "extra attention" from the pharmacist.



An unexpected way in which the card was particularly useful was for patients who were temporary residents, as a means of introduction to the local surgery, and this aspect might be developed in other areas which attract large numbers of visitors, either on vacation or business.

The notification card provided a simple means by which community pharmacists could actively convey information to GPs, and it appears to have some potential to develop the role of the community pharmacist in adverse drug reaction reporting.

In the final chapter, the question is posed of how current practice in responding to symptoms by community pharmacists and counter assistants can be evaluated, and conclusions drawn.

CHAPTER 4  
AN EVALUATION OF CURRENT PRACTICE IN RESPONDING TO  
SYMPTOMS BY COMMUNITY PHARMACISTS AND COUNTER  
ASSISTANTS

Introduction

The Primary Health Care green paper <sup>77</sup> and the Nuffield Inquiry Report<sup>3</sup> both identified responding to symptoms as an important element of the community pharmacist's role, and the former recommended that the pharmacist's involvement in the treatment of minor illness should be extended. Little published data exists on the quality of the advisory service currently being provided in community pharmacies. In particular, the competency of pharmacists to provide such a service has been the subject of little research. Dunn and Hamilton<sup>162</sup>, in their major research-based review of priorities in continuing education for pharmacists, found that responding to symptoms was one of the competencies performed least well by pharmacists in tests to simulate the practice situation. Further investigation was needed to generate more information about the way in which community pharmacists respond to symptoms, especially if any extension of the current role was to be considered.

Previous work has shown that counter assistants also respond to symptoms<sup>53,59,64,65,66</sup> and it was decided that any evaluation of advice given in pharmacies should also include a determination of the extent to which counter assistants were involved, and an assessment of the appropriateness of any advice given. The Consumers

Association study of advice-giving in pharmacies, carried out in 1974, found that while, in general, the level was good, there were areas for concern. In particular, the advice offered by counter assistants was found to be less appropriate than that given by pharmacists. The outcomes of advice given, for example, recommendations to seek medical assistance, and the treatments suggested, were documented and assessed.

Six years after publication of the findings of the Consumers Association survey<sup>64</sup>, the Pharmaceutical Society's Working Party on responding to symptoms had produced its report, and guidelines were issued for pharmacists in practice, setting out areas for appropriate questioning, and identifying symptoms which indicated the possibility of serious illness, and for which immediate medical referral was advisable<sup>82</sup>. In addition to their publication in the Pharmaceutical Journal, a summary of the guidelines was produced by one pharmaceutical company on a series of cards and distributed to every community pharmacy. In 1983, the National Pharmaceutical Association's corporate advertising campaign was launched, with its slogan "Ask your pharmacist, you'll be taking good advice", and advertisements were placed on television and in newspapers and magazines.

The Pharmaceutical Society's Guide to Self-Assessment of professional practice activities contained a section which outlined the pharmacist's responsibilities in responding to symptoms<sup>163</sup>. The Guide required the pharmacist to:

1. Question the enquirer to obtain the following information
  - Extent and frequency of the symptoms
  - Prescribed and non-prescription medicines being taken

#### Associated symptoms

Any previous medical diagnosis of similar symptoms

2. For conditions which were self-diagnosed by the patient, determine the symptoms being experienced.
3. Decide whether the symptoms might be associated with a serious condition; in these circumstances, refer the patient to the doctor.
4. If referral was not recommended, to give appropriate advice, with or without the sale of a medicine.
5. Advise the inquirer to consult a doctor should the symptoms persist

The Guide was published in the Pharmaceutical Journal<sup>163</sup>, and also as an appendix to the Code of Ethics<sup>164</sup>.

In the light of these developments, it was thought timely to examine current practice in community pharmacies, to determine what changes in practice, if any, could be detected. Since this author's survey was completed, in autumn 1984, the Consumers Association have published the findings of a second survey, similar in format to their 1975 study<sup>65</sup>. The results of this will be considered and their implications discussed later in this chapter.

#### Experimental Plan

##### Objectives : To

1. Document and evaluate the advice given by community pharmacists in response to defined symptoms, and compare it with that given by counter assistants.
2. Identify and document the procedure by which requests for advice about symptoms were managed in community pharmacies, i.e. the sequence of questioning,

decision-making and advice-giving.

3. Assess the currency of knowledge of pharmacists and counter assistants, and measure the extent to which new knowledge was reflected in the advice offered.
4. Assess the appropriateness of treatments recommended by community pharmacists and counter assistants.

### Methodology

A survey was planned to investigate the advice given in response to symptoms presented in community pharmacies. A number of research methods were considered, these were :

Face to face interviews

Telephone interviews

Postal questionnaire

Structured observation

Participant observation (covert)

The potential effect of the presence of an observer or researcher on the subject's actions is well-recognised and termed the Hawthorne Effect<sup>141,165,166,167</sup>. The use of a postal questionnaire or traditional interview method was rejected partly for this reason, and because survey methods such as the postal questionnaire would identify what respondents claimed they would do in a given situation rather than what they actually did in practice; the two might not be the same. Furthermore, a high response rate could not be guaranteed, and potential non-response bias was considered of great importance in this study, which aimed to investigate all types and levels of practice. For example, if more competent pharmacists tended to complete the questionnaire (or vice versa), a true picture of current practice would not emerge.



Structured observation in a sample of community pharmacies was considered but rejected on the grounds that in addition to the observer effect, the symptoms and situations presented would be so disparate as to make analysis impossible. If each pharmacist could be presented with the same symptoms and circumstances, their performance could then be compared.

A method of participant observation involving the use of "pseudo-patients" was selected. The use of such a method has been documented previously<sup>168,169,170</sup>. The survey was conducted by a series of visits to community pharmacies with researchers presenting symptoms for advice without disclosing their identity. The symptoms were presented in a previously defined, structured manner to ensure consistency of information and presentation in each pharmacy. The response of the pharmacist or assistant was recorded on a structured schedule after leaving the pharmacy.

The research was undertaken covertly, the pharmacists and counter assistants studied were therefore unaware that they were the subject of a research programme. Had they been cognisant of the subject of the research, their behaviour/responses might have been affected.

### Ethical Issues

The ethical implications of conducting covert research of this type were considered at some length. A project panel of four pharmacists carefully discussed the alternative study methodologies available, and reached the decision that a covert study design would maximise the spontaneity of pharmacists' response. Bok, in her discussion of the ethics of pseudo-patient studies, commented that such studies were often in areas where "the

public interest in uncovering abuse and error is great. They (the studies) serve to protect the public; this purpose gives them greater urgency"<sup>168</sup>.

The potential long-term repercussions of carrying out covert research were debated at some length; the Pharmacy Practice Research Group at Aston University has been fortunate enough to enjoy the support and co-operation of a large number of community pharmacists, and the maintenance of this relationship was a major consideration. However, it was decided after careful consultation, that the subject of the research was of sufficient importance to warrant the use of a covert method.

#### Sample

Eighty-five pharmacies were systematically and randomly selected from the Pharmaceutical Society's Register of Premises, representing twenty per cent of all pharmacies registered in three areas of England; the West Midlands, West Yorkshire and Lincolnshire. The sample was stratified to ensure inclusion of premises in city and town centres, inner city, urban and suburban, and rural areas. Pharmacy ownership was categorised using the Pharmaceutical Society's classification<sup>171</sup>.

#### Researchers

Four researchers carried out the pharmacy visits; two male, two female. Two were pharmacists and two non-pharmacists, to minimise potential bias in the collection and recording of data. The researchers were trained in the presentation of the two symptoms which were required, so that the same information would be volunteered in each pharmacy, and they were required to make themselves familiar with the background information for each symptom,

so that on questioning from the pharmacist or assistant, consistent answers would be given. This was achieved by the researchers attending a training session where the aims of the study and its protocol were explained. The researchers were issued with details of the two symptom scenarios to be used and after the session, they were required to study details of the symptom cases in preparation for the pilot study. After the pilot study, a further briefing session was held, and the protocol for the main study was explained.

### Protocol

The study protocol was designed and agreed by a panel of four pharmacists, after careful consideration of the ethical implications of the research. The study design was such that total anonymity for the pharmacies studied was assured, and no individual pharmacy could be identified from the results. The protocol was as follows:

a. On entering the pharmacy, the researcher would either ask to speak to the pharmacist on duty, or approach the member of staff working on the medicines counter. This was randomly pre-determined to ensure that on half the visits, the query would be initially addressed to the counter staff, and the other half to the pharmacist. If the pharmacist was not available, the reason was ascertained and the query addressed to the assistant.

b. The investigator would seek advice about a symptom, volunteering a limited and previously defined amount of information.

c. On questioning by the pharmacist or assistant, previously arranged responses would be given (See Appendix 4.1). If no questions were asked, no further information would be volunteered.

d. If a product was recommended in the 'red eye' scenario, the researcher would offer the opportunity for advice to be given on expiry dates for ophthalmic preparations after opening (See Symptoms presented, below). Purchase was dependent upon the advice offered. For the 'muscular strain' scenario, any product recommended was purchased.

e. At the close of the consultation, the researcher would ascertain, if not already clear, whether they had been speaking to the pharmacist or an assistant.

f. Immediately after leaving the pharmacy, details of the consultation were recorded on a special form (See Appendix 4.1).

#### Pilot study

Each researcher made two pharmacy visits to test the symptom scenarios, and the adequacy of the recording form. These test visits allowed the researchers to rehearse their presentation of symptoms in a practice situation. Subsequent discussion facilitated minor amendments to the scenarios following the experience gained. The recording form was modified accordingly, the main amendments were the addition of further questions which might be asked by the pharmacist or assistant, so that the researcher could simply tick a box if that question was asked.



### Data collection

Fieldwork was carried out during the first two weeks of September 1984. Data were entered onto the recording form by the researchers after each visit (See Appendix 4.1). Information collected included demographic details of the pharmacy and area, and visit timing. The researcher noted whether they had asked to speak to the pharmacist; if so, the waiting time was recorded. If the pharmacist was not available, the reason was noted. The researcher made an estimate of the pharmacist's or assistant's age, in deciles. The pharmacist's or assistant's gender was noted. If the query was addressed to the assistant, but the pharmacist became involved in the consultation, the manner in which this occurred was noted and classified :

- a. Patient referred to pharmacist by assistant
- b. Pharmacist intervened in consultation
- c. Assistant consulted pharmacist for information, but the pharmacist did not speak directly to patient
- d. Pharmacist was on duty on the medicines counter, so dealt with a query otherwise intended for a counter assistant.

Any questions asked were recorded, together with any advice given, including any recommendation to see the doctor. Product recommendations were noted and dealt with according to the study protocol. Advice given about the correct product use was noted. Ease of identification of the pharmacist was assessed by including details of mode of dress and the wearing of name/title badges. Other details recorded included the number of other customers in the shop, including those apparently waiting for prescriptions to be dispensed.

The pharmacist's general attitude and empathy during the consultation was rated by the researcher on a scale of 1 to



4, where 1 was "below average", 2 "average", 3 "good" and 4 "very good". It was recognised that such a classification could give only a subjective measure, but it was intended to gain an indication of the degree of empathy and friendliness encountered.

#### Symptoms presented

Two symptoms were utilised; red eye, and muscular pain (See Appendix 4.2).

##### i. Red eye

The symptoms were intended to be those of a minor eye irritation, with no signs of infection. The scenario was designed to examine the questioning skills of the pharmacist or assistant, in particular, in differentiating between simple irritation and infection. In addition, the scenario included a check to see if correct advice would be offered about expiry dates of eye preparations after opening. If a product was recommended, the researcher would claim to have some already, which had been purchased and used some months previously and would seek guidance about whether the product could still be used.

##### ii. Muscular pain

Here, the symptoms were those of a simple muscular strain. The patient asked if a product recently seen in an advertisement on television (Nurofen/ibuprofen) would be appropriate. The scenario was designed to explore two areas, firstly, the pharmacist's or assistant's knowledge about the possibility of a cross-sensitivity reaction between aspirin and ibuprofen. The patient would volunteer information suggesting a previous hypersensitivity reaction to aspirin. Secondly, the extent to which the pharmacist or assistant questioned the patient about current

medication would be examined. Here, the possibility of concurrent medication with ibuprofen or another non-steroidal anti-inflammatory agent on prescription should have been identified before ibuprofen was recommended.

#### Questioning during consultations

The eye symptom scenario was designed such that in order for the pharmacist or assistant to differentiate between a minor eye condition and one which was potentially more serious, such as an infection, further questioning would be required. This was made more important because the "patient" was not present in the pharmacy; therefore the pharmacist or assistant was not able to see the eye condition, and could only gain further details by questioning.

#### Data analysis

Data from the recording forms was analysed manually. The outcome of each consultation was classified according to the following categories:

1. No sale of medication proposed, immediate referral to doctor
2. Medication sold for immediate use, patient strongly advised to see doctor as soon as possible.
3. Medication sold, suggestion made that patient should see doctor, no time scale specified
4. Medication sold, patient advised to see doctor if symptoms persisted or worsened.
5. Medication sold, no reference to doctor made.
6. Advice only, not including medication or reference to doctor.

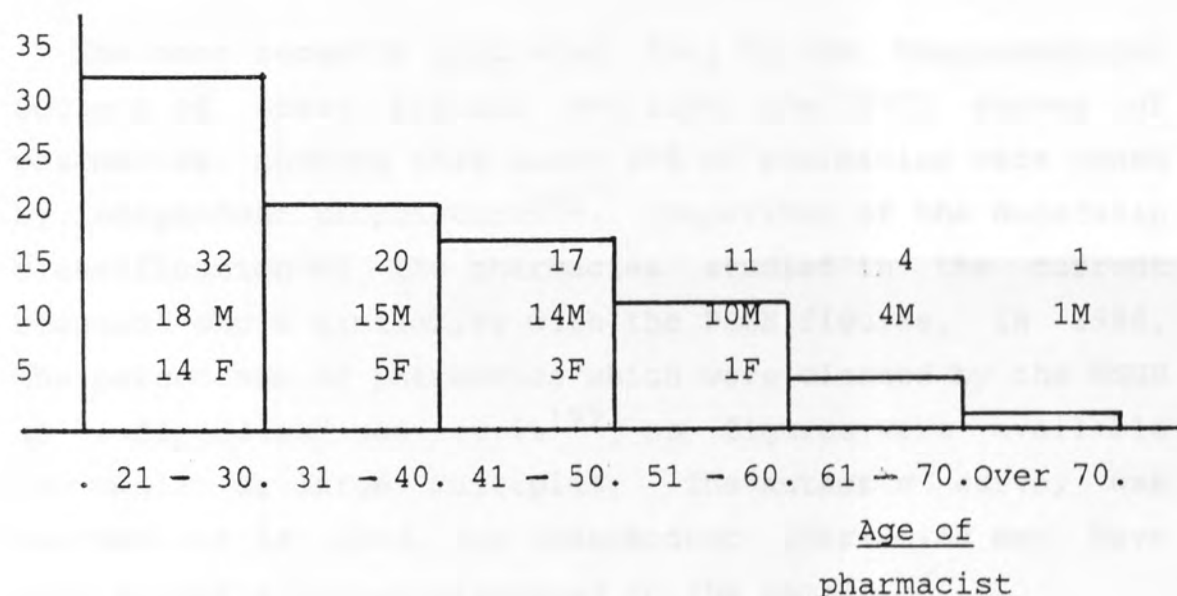
## RESULTS

A total of one hundred and twenty-three visits were made to eighty-five pharmacies. Sixty-two of the eighty-five pharmacists involved were male (73%) and twenty-three female (27%). Their ages, as estimated by the researcher, ranged, as expected from early twenties to over seventy; the age distribution is shown in Fig. 4.1 below.

Fig. 4.1 Age distribution of pharmacists in the study  
(as estimated by researchers)

Number

of pharmacists



M = male, F = female

### Validation of the sample

The ownership types of the pharmacies studied are shown in Table 4.1 below, and compared with PSGB national figures for ownership type<sup>171</sup>.

Table 4.1 : Pharmacy distribution by ownership type

	Author's survey (1984)	PSGB Survey (1972)
Independent pharmacies	62.4%	59.4%
Branches of Small Multiples	16.5%	22.0%
Branches of Large Multiples	21.1%	18.6%

The most recently published data by the Pharmaceutical Society of Great Britain are from the 1972 survey of pharmacies, showing that about 60% of pharmacies were owned by independent proprietors<sup>171</sup>. Comparison of the ownership classification of the pharmacies studied in the current research shows similarity with the PSGB figures. In 1986, the percentage of pharmacies which were classed by the PSGB as "Independent" was 48.6%<sup>172</sup>; no figures were available for small or large multiples. The author's survey was carried out in 1984, and independent pharmacies may have been slightly over-represented in the sample.

#### Pharmacist accessibility

The researcher asked to speak to the pharmacist on fifty-eight occasions and succeeded in doing so on fifty-four; two pharmacists were out at lunch, and in two further cases, the counter assistant told the researcher that the pharmacist was "too busy" to speak to him/her. The pharmacist was thus seen on 93% of requested occasions. The waiting time to see the pharmacist is shown in Table

4.2. In the majority of cases (78%), the researcher saw the pharmacist within one minute of asking to do so; on almost two thirds of occasions, the pharmacist was seen within thirty seconds. The longest waiting time was five minutes . There was no correlation between length of waiting time and time of day, nor with the apparent dispensing workload of the pharmacist, as far as this could be estimated from the number of patients waiting for prescriptions.

Table 4.2 : Waiting time to see the pharmacist

	n = 54
	Number of visits
Immediate	26 (48%)
30seconds or less	8 (15%)
30 seconds to one minute	8 (15%)
One to two minutes	9 (17%)
Two to three minutes	2 ( 3%)
Longer than three minutes	2 ( 3%)

Location of pharmacist

The location of the pharmacist at the time of the researcher's visit is shown in Table 4.3 below.

Table 4.3 : Location of pharmacist

	n = 123
Dispensary	101 (82%)
Medicines counter/	
Prescription reception	19 (15%)
In stockroom	1
Not on premises	2

On most visits, the pharmacist was in the dispensary.



### Extent of pharmacist involvement in consultations

Requests for advice were directed to the counter assistant on sixty-five (53%) of visits, and the pharmacist on fifty-eight (47%) occasions. Pharmacists were involved in ninety-five (78%) of the one hundred and twenty-three consultations. The initial allocation of requests for advice is shown in Table 4.4.

Table 4.4 : Allocation of requests for advice to pharmacists and counter assistants

	Eye symptom n = 68	Muscular symptom n = 55
Pharmacist asked for	30 (44%)	28 (51%)
Pharmacist seen	28	26
Pharmacist unavailable	2	2
Query to counter assistant	38 (56%)	27 (49%)
Query dealt with by assistant	40	29

The processes whereby pharmacists became involved in consultations are summarised in Table 4.5.

Table 4.5 : The consultation process; queries directed to counter assistants

	Eye symptom n = 40	Muscular symptom n = 29
Patient referred to pharmacist	8 (20%)	11 (38%)
Pharmacist intervention	2 (5%)	4 (14%)
Assistant consulted pharmacist	5 (13%)	3 (10%)
Pharmacist dealt with query	5 (13%)	3 (10%)

The eventual distribution of consultations and involvement of pharmacists is summarised in Table 4.6.

Table 4.6 - The consultation process; pharmacists' involvement in advice-giving

	All cases	Eye symptom	Muscular symptom
	n = 123	n = 68	n = 55
Pharmacist	54 (44%)	28 (41%)	26 (47%)
Counter assistant/ pharmacist	41 (33%)	20 (30%)	21 (38%)
Counter assistant only	28 (23%)	20 (30%)	8 (15%)

#### EYE SYMPTOM

The symptom of "red eye" was presented in sixty-eight pharmacies. The outcomes of the consultation are shown in Table 4.7.

Table 4.7 : Consultation outcomes (Eye symptom)

	n = 68	
	Pharmacist involvement (n = 48)	No pharmacist involvement (n = 20)
1. No sale, immediate referral to GP	7 (15%)	3 (15%)
2. Sale, see GP as soon as possible	.	.
3. Sale, see GP after specified timescale	13 (27%)	1 ( 5%)
4. Sale, see GP if symptoms persist	1 ( 2%)	1 ( 5%)
5. Sale, no reference to GP	27 (56%)	15 (75%)
6. Advice only	.	.

Two pharmacists declined to offer any advice without seeing the patient (the researcher was seeking advice for their sister, who was not present in the pharmacy). Nineteen pharmacists (40%) gave advice which included reference to seeing the doctor, either at once, or later if symptoms did not remit; five assistants (25%) gave such advice.

Approximately half the pharmacists and three quarters of counter assistants recommended the use of a product without any reference to the doctor. Overall, immediate over the counter treatments were recommended by 85% of pharmacists, and the same percentage of counter assistants.

#### Questioning during the consultation

An analysis of the questions asked by pharmacists and assistants during consultations is shown in Table 4.8.

Table 4.8 : Questioning by pharmacists and counter assistants : Numbers of questions asked (Eye symptom)

	Pharmacists n = 48	Counter Assistants n = 20
Number of questions asked		
0	4* (8%)	6** (30%)
1	4	1
2	6	6
3	10	1
4	11	3
5	6	1
6	3	.
7	2	.
8	1	.
9	1	.
Mean number of questions per consultation	3.5	1.7

\* Two pharmacists declined to offer advice without first seeing the patient

\*\* Three counter assistants referred the patient to the doctor immediately

Two pharmacists and three counter assistants recommended over the counter treatments without further questioning. Pharmacists asked more questions than counter assistants; an average of 3.5 per consultation compared to 1.7. Since the number of questions asked may not relate to the appropriateness of questioning, the types of questions asked were analysed and the results shown in Table 4.9.

Figures in the table refer to the number of pharmacists or counter assistants who asked questions in each category.

Table 4.9 : Classification of questions asked during consultations (Eye symptom)

	Pharmacists	Counter Assistants
	n = 48	n = 20
Severity	31 (65%)	10 (50%)
Duration	22 (55%)	1 ( 5%)
Presence of matter/ stickiness in eyes	23 (48%)	4 (20%)
Soreness	12 (25%)	5 (25%)
Itchiness	10 (21%)	4 (20%)
Age of patient	14 (30%)	1 ( 5%)
Previous history of allergy	9 (19%)	4 (20%)
OTC medicines used	3 (6%)	1 ( 5%)
Possible cause of symptoms	15 (31%)	3 (15%)

Most pharmacists and assistants asked about the severity of symptoms. Almost half the pharmacists and one fifth of counter assistants asked whether any matter was present in the eyes, or whether the eyes had been sticky; such questioning would have elicited information about the presence of infection. Over half the pharmacists asked about the duration of symptoms, only one of the counter assistants did so.

Similar proportions of pharmacists and assistants enquired about soreness or itchiness of the eyes, and about any previous history of hayfever. The current or previous use of any over the counter treatments was asked about by a minority of pharmacists and assistants. One third of



pharmacists established the age of the patient; one of the twenty counter assistants did so.

#### Recommendation of over the counter medicines

The range of treatments recommended is shown in Table 4.10, all of which were considered acceptable by the project pharmacist panel, to treat the symptoms described.

Table 4.10 : Over the counter product recommendations

<u>(Eye symptom)</u>	Pharmacists n = 41	Counter Assistants n = 17
Boots Eye Drops	.	1
Brolene Eye Drops	17 (41%)	5 (29%)
Brolene Eye Ointment	5 (12%)	1
Clearine Eye Drops	4	2
Murine Eye Drops	1	4
Optrex Eye Drops	3	3
Optrex Eye Lotion	.	1
Otrivine-Antistin Drops	8 (20%)	1
Pennine Drops	2	.

The advice given by pharmacists and counter assistants about recommended expiry dates for eye preparations is summarised in Table 4.11.

Table 4.11 : Awareness of recommended discard dates for eye preparations

n = 68	Pharmacists n = 41	Counter Assistants n = 17
Appropriate advice given	36 (88%)	5 (29%)

Five of the forty-one pharmacists who recommended the use of an over the counter product (12%) made no reference for the patient's benefit to the recommendation that eye preparations should be discarded four weeks after opening; twelve of the seventeen counter assistants (71%) gave incorrect advice. In these cases, the researcher was reassured by the assistant that eye preparations which were already opened and had been used previously were suitable for use.

#### MUSCULAR SYMPTOM

The muscular symptom was presented in fifty-five pharmacies. Details of the consultation process summarised in Table 6 show that eight (15%) consultations were dealt with by the counter assistant without reference to the pharmacist. The outcomes of the consultations are summarised in Table 4.12.

Table 4.12 : Consultation outcomes (Muscular Symptom)

	Pharmacist involvement (n = 47)	No pharmacist involvement (n = 8)
Ibuprofen recommended	19 (40%)	8 (100%)
Ibuprofen recommended: caution advised	5 (11%)	.
Ibuprofen not recommended	23 (49%)	.

Use of ibuprofen, without any caution being given about possible hypersensitivity, was recommended by 19 pharmacists (40%) and all eight counter assistants. Thus, on twenty-seven of the fifty-five occasions when the muscular symptom was presented (49%), over the counter ibuprofen was purchased without cautionary advice. Of the twenty-three pharmacists who advised against the use of ibuprofen; seventeen advised the use of an alternative analgesic, five recommended that the patient continued to take paracetamol tablets, and one suggested that the patient should see the doctor. Five topical analgesics were recommended, the twelve oral analgesics were all paracetamol-based, and the products are shown in Table 4.13.

Table 4.13 : Analgesics recommended by pharmacists during consultations

n = 22	
Paracetamol Tablets	5
Panadeine Co Tablets	7
Solpadeine Tablets	3
Paracodol Tablets	2
Intralgin Gel	2
Algipan	2
PR Spray	1

Questioning during consultations

Questions were asked by fifteen pharmacists (32%) and one of the eight counter assistants. One pharmacist asked whether any prescription or over the counter medication was currently being taken; none of the counter assistants did so. Advice and instructions on the correct use of the recommended over the counter medicine was volunteered by

eight (20%) of the forty-one pharmacists who made a product recommendation, and none of the assistants who did so.

#### Ease of identification of pharmacists

Some difficulty and uncertainty was experienced in identification of the pharmacist. Where the researcher had not asked to speak to the pharmacist and was unsure of the identity of the person dealing with the query, they ascertained whether they had been talking to the pharmacist. Forty-three of the eighty-three pharmacists seen were wearing white coats (53%); equal proportions of male and female pharmacists did so. Name badges were worn by twelve pharmacists (14%); six males (10%) and six females (27%) did so. Some badges indicated name only, not status, and pharmacists were not always readily identifiable from such badges.

#### DISCUSSION

##### Accessibility of community pharmacists

One of the principal findings of the survey showed that community pharmacists were readily accessible for consultation. They were seen on 93% of occasions when requested, and the majority made themselves available to answer the researcher's query within thirty seconds. These findings reaffirm Webb's statement<sup>56</sup> following observation in a number of pharmacies that "The pharmacist in all observed cases appeared willing to give this advice when customers sought it, often interrupting his dispensing duties to discuss the matter with them, even when the shop was crowded".

Pharmacists were involved in 78% (96) of consultations, which should be seen in the context that the researcher asked to speak to the pharmacist on only 54% (66) of occasions. These results might reflect the counter assistants' training and perceptions of the seriousness of the symptoms presented, and will be discussed in greater detail later.

Pharmacists were found to be on routine duty on the medicines counter on fifteen visits (12%). This figure might be considered disappointingly low considering the encouragement which has been directed at pharmacists in recent years to take a high profile and spend more time talking to patients. However, for the pharmacist to be able to delegate most of the dispensing process to other members of staff, it would be necessary for adequately trained technicians to be employed to enable such delegation. Evidence from research indicates that fewer than half community pharmacies employ any trained dispensing staff<sup>11,12</sup>. The percentage of pharmacies employing a second pharmacist has remained static over the last ten years, so that currently, only one in ten pharmacies has more than one pharmacist on duty at any one time. Thus, since the average pharmacy dispenses some 2 800 NHS prescription items each month, the pharmacist supervises the dispensing of one prescription item every four to five minutes. Since 90% of pharmacies have only one pharmacist, and less than 50% employ any trained dispensing help, it is perhaps not surprising that the majority of pharmacists in this study were working in the dispensary rather than being available in the shop.

The introduction of the new NHS Contract for community pharmacies in 1987 may prove to both help and hinder the situation. On one hand, the possible closure of around



three hundred pharmacies would make more pharmacists available for work, on the other, the abolition of the basic practice allowance without the establishment of a second pharmacist allowance may inhibit the employment of second pharmacists<sup>6</sup>.

#### Pharmacist involvement in consultations

Comparison of pharmacist involvement in dealing with the two symptoms in this survey shows that for the eye symptom, 50% of cases directed to an assistant were dealt with without reference to the pharmacist, for the muscular symptom this percentage was lower, at 30%. One possible explanation for this is that at the time of the study, ibuprofen was a relatively new over the counter product, having been available for a little over one year, since August 1983<sup>173,174</sup>. Counter assistants may have felt less confident to answer queries regarding its use than to deal with what they may have perceived as a more straightforward request for advice about an eye condition.

The counter assistant's perception of the seriousness of symptoms presented appears to be an important factor in determining whether the pharmacist will be involved in the consultation. Previous work has shown that when symptoms of varying severity were described to counter assistants, the pharmacist became involved in between 16% and 45% of cases. Table 4.13 shows a comparison of results obtained from the author's study with those from the 1985 Consumers' Association survey<sup>65</sup>. The symptoms presented in the author's study, eye and muscular symptoms, achieved higher rates of pharmacist involvement than those in the Consumers Association (CA) survey.

Table 4.14 : The consultation process; pharmacist involvement where symptoms were initially presented to counter assistants

Symptom		Assistant	Referred to pharmacist
Headache*	n = 54	39 (72%)	15 (28%)
Sore throat*	n = 51	43 (84%)	8 (16%)
Indigestion*	n = 54	38 (70%)	16 (30%)
Constipation*	n = 54	30 (55.5%)	24 (44.5%)
Red eye	n = 40	20 (50%)	20 (50%)
Muscular pain	n = 27	8 (30%)	19 (70%)

\* = Consumers Association survey 1985<sup>65</sup>

Counter assistants' training and experience must have a bearing on the way in which they respond to patients' symptoms. Since evidence suggests that few assistants receive any structured training<sup>67</sup>, it is likely that previous experience is used as a basis for decision-making when symptoms are described. Therefore it is possible that more commonly-presented symptoms would have been encountered previously, leading the assistant to feel confident to deal with such symptoms. Respiratory and gastrointestinal symptoms are the most commonly-presented in pharmacies<sup>1,61</sup>. It is interesting that in the Which survey<sup>65</sup>, these were the symptoms where pharmacist involvement in consultations was lowest, perhaps indicating that assistants felt because they dealt with them so frequently, they were competent to do so without the pharmacist's involvement. Market researchers have studied the sale of medicines by pharmacists and assistants; eight symptoms were studied and on average, 53% of sales were made by counter assistants<sup>175</sup>.

Further analysis of the way in which counter assistants dealt with symptoms is needed before the appropriateness of pharmacist referral can be considered. If counter assistants were trained to ask a series of appropriate questions to ensure that the condition was likely to be minor rather than more serious, it could be argued that assistants could deal with some situations without the need to involve the pharmacist. In this study, assistants were found to ask fewer and less appropriate questions than pharmacists. The questions asked must be related to the outcome of the consultation, for example, it might be reasonable to refer the patient directly to the doctor without asking further questions, after hearing a description of the symptoms. Twenty assistants offered advice about the eye condition without reference to the pharmacist while only four of these asked any questions which might have differentiated the symptoms of an eye infection. The process of questioning will now be considered in further detail.

#### Questioning about symptoms

In this study, the eye symptom was intended to provide a basis for an examination of patterns of questioning. The information volunteered by the researcher was limited, and in order to enable differentiation between minor and potentially more serious conditions, additional questioning would be needed. The patient was not present in the pharmacy, as the researcher claimed to be a relative, thus making questioning even more important, since it was not possible to view the appearance of the eye condition. Indeed, two pharmacists declined to give any advice without seeing the patient, which was considered to be responsible,

although arguably not the most potentially helpful advice in the circumstances.

Although competency measurement in responding to symptoms is difficult, because for any symptom, there may be a variety of approaches and outcomes which are acceptable, generalisations can be made about appropriate courses of action. In this case, once the pharmacist or assistant had asked questions about the condition, it was considered reasonable by the pharmacist panel that treatment could be recommended, providing advice was given about the time limit or stage at which medical assistance should be sought if symptoms did not remit. In this context, it was considered good practice to suggest a time scale for treatment, with a recommendation to see the doctor if the condition had not improved in a defined time (two to three days or less).

The following areas of questioning were thought necessary as a basis on which to make a decision about treatment:

- Severity of symptoms
- Duration of condition
- Presence of infection

Over half the pharmacists asked about severity and duration of symptoms, almost half about signs of the presence of infection. Although half the assistants asked about the duration of symptoms, a minority asked about severity or signs of infection. Thus, less than half; 23, 48% of the pharmacists and less than a quarter of assistants were thought to have asked questions which would have elicited sufficient information on which to base treatment. The pharmacists who covered all three areas of questioning asked more questions than those who did not,



an average of 4.7 per consultation compared to 3.5 for all pharmacists. One of the twenty-three pharmacists recommended an immediate visit to the GP; the other twenty-two were more likely than those pharmacists who did not ask pertinent questions to mention seeing the doctor if symptoms did not improve; twelve (52%) did so, compared to 29% for all pharmacists. Balon<sup>70</sup> also found this trend in his analysis of the Consumers Association (CA) results. The counter assistants who covered all three areas asked 3 questions per consultation compared to 1.7 for all assistants.

Thus, half the pharmacists in the study might be considered to have asked sufficiently pertinent questions, half did not. Without asking such questions, it would be unwise and might be dangerous to initiate treatment. The findings of this study suggest that more attention should be paid to pharmacists' training in the area of questioning about symptoms. No clear logical sequence of questioning emerged from either pharmacists or counter assistants. While it is accepted that a rigid series of questions is not always necessary, in the case of counter assistants, this can be related directly to lack of appropriate training.

There was no correlation between numbers and appropriateness of questions asked and the pharmacist's age, as estimated by the researcher.

Balon<sup>70</sup>, in his reanalysis of the Consumers Association survey findings, classified areas of questioning into what he termed "areas of concern", as follows:

1. Symptom
2. Any other symptoms
3. Age/risk group
4. Location



5. Severity
6. Duration
7. Recurrent?
8. Causation
9. Medicines tried for current problem
10. Doctor consulted?
11. Chronic disease/risk group
12. Current chronic medication
13. Allergies to medication

The results of the current survey may be analysed using this classification; while the author does not accept the premise put forward by Balon that all areas should be covered in every consultation, since some information is usually volunteered by the patient, and every case would not warrant questioning in each of the thirteen areas. Nevertheless, such analysis gives a further insight to the results.

Presentation of the eye condition included the researcher volunteering information about the symptom and its location; questioning in these areas was not necessary, thus leaving eleven areas of concern. If each pharmacist had questioned about all those areas, a total of five hundred and twenty-eight questions would have been asked; in practice, the actual number of questions asked was one hundred and sixty-nine (32%). Carrying out the same process for counter assistants, a total of two hundred and twenty questions could have been asked; the actual figure was thirty-four (15%). Balon found that in the CA survey, 11% of the number of questions which could theoretically have been asked, were asked by pharmacists in practice. Adjusting this figure for the areas covered in the information volunteered by the researchers, the percentage becomes 14%.

Thus, pharmacists in the author's study were found to ask not only more but more pertinent questions than in the CA study. Because eye conditions are presented in pharmacies less often than the symptoms utilised in the CA survey (cough, headache, indigestion, diarrhoea), it is possible that pharmacists would be more likely to try and elicit more information about the symptoms. The CA results showed that counter assistants asked 4% of possible questions in dealing with "minor" symptoms.

#### Outcome of consultations

Immediate referral to the doctor was advised for the eye condition on eight occasions (12%), sometimes after few questions had been asked. Although a recommendation to see the doctor cannot be regarded as an incorrect management decision, in this case, it would have been reasonable to treat the symptoms after appropriate questioning. Two pharmacists declined to give any advice without first seeing the patient, which seems a reasonable approach. In the case of eye and skin conditions, the appearance of the condition is important and may well be instrumental in the decision-making process.

Fifty-six per cent of pharmacists and 75% of assistants recommended treatment without any advice about if and when to seek medical assistance. These pharmacists also asked fewer and less pertinent questions than those who gave advice about when to see the doctor. Thus, they gathered less information on which to base a management decision, and also gave no guidance about what to do if the symptoms did not improve.

### Awareness of recommended discard dates for eye preparations

When asked for advice about whether previously-opened eye drops or ointment could be re-used, 88% of pharmacists and 29% of counter assistants were considered to have given appropriate advice, i.e. that such products should be discarded one month after opening. From either their undergraduate training, postgraduate education or professional advice in the pharmaceutical press, pharmacists should have been aware of the risks of contamination of products intended for use in the eyes, and of the general rule regarding discard dates following opening.

There were some exceptions to the general trend. One pharmacist, working in a deprived area, was obviously concerned about the cost of the treatment he recommended, and advised the researcher to sterilise the tube of ointment by pouring boiling water over the nozzle. The pharmaceutical acceptability of such a recommendation is dubious but on this occasion, the pharmacist offered well-intentioned, though perhaps misguided advice.

The fact that almost nine in ten pharmacists gave correct advice is encouraging. The recommendations given by counter assistants were less satisfactory; over two thirds of assistants advised re-use of eye drops or ointment which had been stated to have been opened several months previously. Bearing in mind the lack of training of many counter assistants and variability of assistants' training generally, it is perhaps not surprising that they were often unaware of the correct advice. Nevertheless, if unqualified assistants are to offer advice, it must be the pharmacist's responsibility to ensure they receive appropriate training.

### Currency of advice given

The muscular symptom scenario was intended to check the currency of information being given in community pharmacies. The researcher, asking if ibuprofen was suitable to treat an injured knee, volunteered information describing a previous history of hypersensitivity to aspirin. At the time of the study, ibuprofen had been available for purchase over the counter for one year; at the time of its launch, manufacturers literature sent to community pharmacists about Nurofen (later to become the top-selling brand of over the counter ibuprofen), included a statement to the effect that cross-sensitivity between aspirin and ibuprofen was possible and should be borne in mind by the pharmacist when ibuprofen was recommended. During the months following its launch, reports in the pharmaceutical press and correspondence in the columns of the Pharmaceutical Journal, including reports of cross-sensitivity between aspirin and ibuprofen<sup>176,177</sup>, culminated in an announcement in July 1984 by Crookes, the manufacturers of Nurofen, that a warning was to be printed on all packs of Nurofen<sup>178</sup>: "Caution - patients sensitive to aspirin may also be sensitive to ibuprofen". The manufacturers' decision was referred to in an editorial in the Pharmaceutical Journal on August 4th 1984 which said "It is a matter for concern that only now is a warning to be printed on packs of Nurofen". Thus, the question of cross-sensitivity had received considerable attention in the pharmaceutical press, and it was decided this could be utilised as a measure of currency of pharmacists' knowledge, to assess whether this knowledge had been passed on to counter assistants, and to measure the extent to which the caution about use of ibuprofen in cases of known aspirin sensitivity would be reflected in the advice given



to patients.

The results of the survey showed that where the pharmacist was involved in the consultation, on a majority (60%) of occasions, (s)he advised against the use of ibuprofen, or recommended its use with caution, telling the researcher of the possible cross-sensitivity problem. Forty per cent of pharmacists therefore told the researcher that there would be no problem with the use of ibuprofen. In the eight cases where the assistant dealt with the query, ibuprofen was sold without any caution on all occasions. Counter assistants often referred the query to the pharmacist, suggesting their lack of confidence to give correct information. However, it is disturbing and unacceptable that nineteen pharmacists and eight assistants sold Nurofen, thus giving the patient an unfounded assurance that its use would not pose any risk. There was some evidence that younger pharmacists were more likely to give appropriate advice about the use of ibuprofen, but numbers were not large enough to allow tests for statistical significance to be carried out. For assistants, the argument of lack of training might be put forward to explain the giving of incorrect advice; however, as discussed earlier in this chapter, it must be the pharmacist's responsibility either to ensure pharmacy staff have appropriate training, or not to delegate the advisory role.

One (2%) of the forty-seven pharmacists and none of the eight assistants who dealt with the Nurofen query asked whether the patient was currently taking any other medicines. Such questioning is essential if any medication is to be recommended. Twenty-four pharmacists then went on to recommend the use of ibuprofen, and twelve recommended the use of other oral analgesics without any check on



current medication. Research has shown that patients are often unaware that over the counter ibuprofen is the same medicine that is sometimes prescribed by doctors<sup>179</sup>, and patients may already be taking this or another non-steroidal anti-inflammatory agent. That such questioning did not occur in the majority of cases is unacceptable.

The currency of knowledge of 40% of pharmacists in the study was shown to be inadequate. However, it is difficult to define what constitutes an acceptable or unacceptable level of knowledge for members of any profession, without recognised standards at any one time and criteria for competency. It cannot be considered acceptable, however, that less than two thirds of pharmacists gave the correct information in this case.

Since the period of the study, several deaths have been attributed to the use of over the counter ibuprofen; one woman died in early 1987 after suffering acute bronchospasm as a result of taking OTC ibuprofen<sup>180</sup>; she had been asthmatic for many years and at the inquest, no evidence was available to suggest aspirin sensitivity. Although the woman's husband testified that she never took aspirin, he did not know why not. While this particular case may not have been preventable or even predictable, it demonstrates the problems which can result from the use of over the counter medicines, which are generally considered to be sufficiently safe by members of the public because of their ready availability.

The pharmacist has a responsibility to ensure, as far as possible, their safe use. To date, there have been no legal cases brought in the UK to test the legal status of the pharmacist's advice. However, a pharmacist would be at risk of being sued for negligence following the sale of OTC

ibuprofen to a patient who, as a result, suffered a hypersensitivity reaction, if the pharmacist had not checked whether the patient had any previous history of aspirin sensitivity.

The findings of this study showed that a majority of pharmacists were aware of potential problems, and it may well be considered that the average pharmacist should have known of the possible consequences of an aspirin-sensitive patient taking ibuprofen, and, accordingly, advised against its use. The survey findings suggest that more effective means must be found of ensuring that community pharmacists are made more aware of important information about OTC medicines. This matter is of increasing importance as European strict liability legislation is under consideration.

The manufacturers of Nurofen, in response to concern about ibuprofen and bronchospasm, announced in early 1987 that the inclusion of a warning to asthmatic patients on the Nurofen pack was under consideration<sup>181</sup>. The warning was added later in 1987 and read "Asthma sufferers and anyone allergic to aspirin should only take Nurofen after consulting their doctor"<sup>182</sup>.

This study demonstrated that pharmacists readily made themselves available for consultation, but that their skills in responding to symptoms were sub-optimal. Questioning skills were often found to be inadequate, and pertinent questions were often missed, for example about signs of infection in the eye condition, and about current medication when ibuprofen might have been recommended. Since many pharmacists did not gain sufficient information from questioning to allow appropriate decision-making, the outcomes of some consultations were unsatisfactory. Many pharmacists (over half) recommended treatment of the eye

condition with no guidance to the patient about when to see the doctor if the symptoms did not get better. The currency of pharmacists' knowledge was found to be inadequate in 40% of cases, with implications for the accuracy of advice given.

The role of the counter assistant in responding to symptoms must be reviewed and resolved. This survey reaffirmed that counter assistants are actively involved in the giving of advice, but that their questioning skills were poor, and the advice they gave often incorrect. Compared to pharmacists, counter assistants were equally likely to refer the patient to the doctor at once, but less likely to give advice about when to see the GP if the condition did not remit.

Pharmacists' training in responding to symptoms has traditionally been variable at undergraduate level; since some schools of pharmacy have not taught the subject formally. Training during the pre-registration year remains variable, and some pre-registration graduates continue to spend the year outside community pharmacy. Even within community pharmacy, where the pre-registration graduate will formulate future practice by observing the tutor, who acts as a role model, the tutor's skill or otherwise in responding to symptoms will affect the training given. Attendance at continuing education courses after registration is on a voluntary basis and, disappointingly, still attracts only a minority of pharmacists. Pharmacists must be able, by structured questioning, to exclude serious pathology if they are to successfully fulfil their role in the treatment of minor illness, particularly if this role were to be extended. Areas for concern in pharmacists' training in responding to symptoms have been highlighted in this chapter, and their

implications will be more fully discussed in the next chapter.

## CHAPTER 5

### DISCUSSION AND CONCLUSIONS

The purpose of this study was to examine the role of the community pharmacist in the United Kingdom. The study was conducted in 1986 and 1987. The study was conducted in two phases. The first phase was a literature review. The second phase was a survey of community pharmacists. The study found that the role of the community pharmacist is evolving. The role is becoming more complex and more demanding. The study also found that the community pharmacist is playing a key role in the provision of pharmaceutical services. The study concluded that the community pharmacist is a vital part of the health care system. The study also found that the community pharmacist is playing a key role in the provision of pharmaceutical services. The study concluded that the community pharmacist is a vital part of the health care system.

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## CHAPTER 5

### DISCUSSION AND CONCLUSIONS

The publication of the Nuffield Report<sup>3</sup> and the Primary Health Care Discussion Document<sup>77</sup> in 1986 set the scene for a potentially extended role for community pharmacists in several areas of their work, including that of responding to symptoms. Both documents reaffirmed the value of the community pharmacist's role in this area, and both referred to the possible extended role by supporting the deregulation of more Prescription Only Medicines to Pharmacy medicines, thus creating a wider range of more therapeutically effective treatments available for the pharmacist's recommendation.

The underlying theme of this thesis has been a consideration of the community pharmacist's current role in responding to symptoms and a study of some potential barriers which might prevent such role extension, including education and training needs, and working relationships with general practitioners. If plans are to be made to extend counter prescribing beyond existing boundaries, the education and training needs of community pharmacists must be addressed at undergraduate and postgraduate levels. In addition, there is a need to influence pharmacists' attitudes to encourage a more dynamic approach to responding to symptoms.



## Communication and collaboration between pharmacists and GPs

The results of the survey of the opinions of general practitioners carried out as part of this research demonstrated that GPs supported the advisory role of the pharmacist and recognised that such a role was essential within the primary care system; over 90% of respondents thought that the counter prescribing activities of the pharmacist should be maintained or increased.

Nevertheless the fact remains that communication between community pharmacists and GPs is neither as frequent or as collaborative as might be hoped for or expected. Many doctors cited the lack of regular meetings between pharmacists and GPs, and the geographical isolation and separation of pharmacy premises from medical practices as reasons why the pharmacist was not considered a member of the primary health care team. The problems and barriers to communication and collaboration within the primary health care team have been investigated previously<sup>151</sup>. The current survey showed that almost one third of the GP respondents did not consider the pharmacist to be a member of the team.

It is tempting to think that the development of pharmacies in health centres might offer a solution to problems of communication and result in a greater level of collaboration between pharmacists and doctors. However, there seems to be little evidence that this has been the case in existing health centre pharmacies, some of which have existed for up to forty years. The Nuffield Report<sup>3</sup> commented that in their visits to such pharmacies, the Inquiry Committee found that although contacts between pharmacists and GPs about prescription queries were easier than was the case if the surgery and pharmacy were in

separate premises, there was little evidence of an increased incidence of regular and structured discussions on prescribing or policy matters.

Furthermore, the advisory role of the pharmacist in health centre pharmacies must be carefully considered. If the community pharmacist practises in the same premises as the local doctors, might patients not decide to seek the doctor's opinion rather than that of the pharmacist, having travelled to the surgery? This might be especially true if the health centre was situated away from the main residential area<sup>183</sup>. The loss of local community pharmacies and their replacement by larger pharmacies within health centres may prove to diminish the pharmacist's role in responding to symptoms and health promotion, though it might be postulated that such a move would increase the pharmacist's role in counselling about prescribed medicines.

One health centre pharmacist commented that "people do not come in from the street or make purchases, therefore opportunities for counter prescribing or making recommendations are few and far between"<sup>184</sup>. Although the potential for greater collaboration between pharmacists and doctors existed in health centres, in practice it does not appear to have been fulfilled. The further development of health centre pharmacies is not necessarily the answer to communication barriers which it at first appeared to be.

The Royal College of Physicians of Edinburgh<sup>185</sup>, in a report on co-operation between medical and other health professions, stated that the incorporation of pharmacies into health centres "might conceivably reduce the frequency of self-care for self-limiting illness" and, furthermore, that "problems may also be created for patients with limited mobility and time, who may have difficulty in

visiting the health centre". This reflects in part on the fact that health centres have often been sited on land available for reasons other than geographical convenience to the patients.

The setting up of local liaison committees involving GPs and pharmacists in discussions about appropriate and cost-effective prescribing should ensure regular and more collaborative communication, and the establishment of such committees has been recommended by several groups, including the Nuffield Inquiry<sup>3</sup>, the Hinchcliffe Committee (as long ago as 1959) and the Society of Family Practitioner Committees (FPCs), among others<sup>186</sup>. It has been suggested that the committees need not be formal in structure, and could be organised on a local basis, outside the existing networks such as FPCs, NHS health districts and Local Pharmaceutical Committees (LPCs)<sup>186</sup>. The Nuffield Report considered there was a need for "more systematic, though not necessarily more formal arrangements to enable community pharmacists to cooperate with GPs in order to increase the effectiveness with which medicines are used and to reduce the overall cost of prescribing"<sup>3</sup>. However, the Nuffield recommendations on personal control have not been accepted by the PSGB's Council, with the effect that as at present, only short absences from the pharmacy will be permissible. If local liaison committees are established, it is likely that they will have to meet outside pharmacy business hours, since many pharmacies do not close at lunchtime.

Encouragingly, in the survey of general practitioners' opinions about counter prescribing by pharmacists, most GPs (more than three quarters) welcomed the idea of joint educational meetings with pharmacists. The trainers responsible for organising postgraduate courses for

community pharmacists might liaise with their counterparts, the GP Trainers and Tutors, to arrange courses on topics of mutual interest. The "policeman" image of the pharmacist will remain a problem until contacts between pharmacists and GPs concerning simple prescribing queries cease to constitute the majority of occasions when conversations take place between members of the two professions.

The results from the questionnaire defined some areas where GPs felt first-line treatment by the pharmacist to be appropriate, and some where such treatment was thought inappropriate. Examples of the latter group were haemorrhoids and cystitis. For most commonly-presented symptoms, i.e. respiratory conditions, gastrointestinal problems, skin disorders and muscular pain, a majority of doctors were happy for pharmacists to treat in the first instance, referring later if necessary.

There was relatively little support from GPs for the deregulation of Prescription Only Medicines, but opinions varied widely, with no consensus view about most of the suggested medicines. However, a majority of respondents were in favour of the availability of steroid-containing treatments for haemorrhoids and mouth ulcers from pharmacies, but against such availability for topical hydrocortisone or antibiotic preparations, chloramphenicol eye drops or dihydrocodeine tablets. The apparent contradiction between the finding that doctors did not consider haemorrhoids suitable for treatment by pharmacists, yet were in favour of steroid-containing haemorrhoidal preparations being available over the counter is partly explained by respondents' comments later in the questionnaire, where it became apparent that treatment by pharmacists was thought acceptable after an initial



examination and diagnosis by the GP.

From comments made by GPs who responded to the survey, it appears that many doctors are not aware of the content of pharmacists' undergraduate education, and therefore do not have an accurate view of pharmacists' knowledge base. This has surely led GPs to underestimate pharmacists' capabilities and influence their opinion about any extended role for the pharmacist. However, opposition to an expansion of the community pharmacist's work in responding to symptoms must be considered against the sensitivities of professional boundaries, their definition and maintenance. Undoubtedly, some aspects of the proposed extended role for pharmacists might be seen by doctors as an encroachment on their professional territory.

#### Patient medication records

The issue of patient records is worthy of further consideration. Some GPs argued that extending the range of medicines which pharmacists could recommend and supply was not desirable since pharmacists had no access to the patient's medical or medication history. As a consequence, the pharmacist might be unaware of potentially serious interactions or medication allergies.

More effective public relations might help to counter the problem of doctors' unawareness of the pharmacist's training and background knowledge, although it could not address the complex issue of inter-professional boundaries. The issue of patient medication records (PMRs) is largely in the hands of community pharmacists themselves. If records were kept of patients' prescribed medication, then, despite the problems which may occur when patients visit different pharmacies, pharmacists would have the facility



to consult a medication history. A two card system, where the patient kept the first copy and the pharmacist the second could be useful where patients did not always take their prescription to the same pharmacy.

With a greater knowledge of the patient's medication background, the pharmacist could make more informed decisions about over the counter recommendations, and avoid potential interactions, known drug sensitivities and allergies. Research has already documented the effectiveness of patient medication records in the detection and prevention of drug-related problems<sup>187</sup>. Some interactions between prescribed and over the counter medicines have proved fatal<sup>188,189</sup>, and, although such cases are rare, they might be prevented by the widespread use of patient medication records.

Both the PSNC<sup>190</sup> and the PSGB<sup>191</sup> support the development of PMRs in community practice, and the Consumers' Association, in their response to the government's Primary Health Care Discussion Document, made a recommendation that community pharmacists should maintain records of patients' prescribed medication<sup>192</sup>.

Patient medication records might help to reduce the number of occasions when a telephone call to the doctor was necessitated by an incomplete or incorrect prescription, thus helping to dispel the "policeman" image. Some pharmacists have already developed their professional practice by establishing patient record systems, although they are not specifically remunerated under the terms of their NHS Contract for doing so. It is possible that the introduction of a Good Practice Allowance<sup>132</sup> for community pharmacists might provide the potential for remuneration for additional services such as patient medication records. The increasing availability of computer-based systems might

encourage more community pharmacists to initiate records.

The concept of a Good Practice Allowance (GPA) for general medical practitioners was proposed in the Primary Health Care Discussion Document, but has since been rejected by the General Medical Services Committee<sup>131</sup>. One of the reasons put forward for its rejection was that any Good Practice Allowance should be within the means, potentially of all practitioners, and that the system which had been put forward would favour group practices which would be better able to afford the purchase of new equipment and the costs of employing additional staff.

In its support for a Good Practice Allowance, it is noteworthy that in contrast the PSNC has recognised that only those pharmacies which are prepared to develop their practice and provide additional services would be entitled to any Allowance. Further, should the payment of an allowance be introduced, such a scheme would provide a tangible distinction between pharmacies in terms of the services provided and monies paid by the DHSS for those services. This might be considered, under the terms of the current Code of Ethics, to make an "invidious distinction" between pharmacies. Some distinction already exists, in that some premises have been approved for the purposes of pre-registration training while others have not, but this difference is not necessarily apparent.

If pharmacists were to be paid for additional services, it would seem appropriate that such payment should be linked to a demonstration of the pharmacist's competence to provide the service to a defined standard. One aspect which could be assessed might be the completion of appropriate training by the pharmacist. A series of practice-related modules covering areas such as responding to symptoms could be devised; completion of the appropriate

modules would be a prerequisite to payment of the Allowance. It would be necessary to reassess the service offered and the pharmacist's competence to provide it at regular intervals, perhaps every three to five years. There is a need to develop methods of assessment which are practice-based; the work already completed in this area by Dunn and Hamilton<sup>162</sup> in their research project "The determination of priorities in the continuing education of pharmacists" forms a starting-point for trial and further development.

#### Education and training in responding to symptoms

The need for more education in the field of responding to symptoms was demonstrated by Dunn and Hamilton's work, which established that this was one of the competencies performed least well by pharmacists. One of the recommendations in the final report of the project<sup>162</sup> was that this was an area to which priority should be given in the postgraduate education of pharmacists. The findings of the 1975 Consumers Association survey which studied the response to symptoms in pharmacies gave cause for thought; the outcomes of the "consultations" studied were to raise two areas of concern. Firstly, some patients were not advised to seek medical advice for potentially serious symptoms, and secondly, inappropriate types or quantities of medicine were considered to have been supplied by some pharmacists. The researchers concluded that better advice was more likely to be obtained from the pharmacist than the counter assistant, but that the quality of advice-giving could be improved<sup>64</sup>. The 1985 Consumers Association survey highlighted areas where community pharmacists were not following the guidelines issued by the PSGB following the Working Party Report on Responding to Symptoms in 1981, and

which had become available to pharmacists in the period between the two surveys<sup>65</sup>.

The survey of advice given in community pharmacies which formed part of the research base for this thesis identified several areas of concern. On a number of occasions, the symptoms were dealt with by a counter assistant without reference to the pharmacist. It is known that the training of counter assistants is variable; one survey has revealed that only 20% of counter assistants had attended a training course of any sort<sup>67</sup>. A situation where assistants without formal training are left to make decisions about patients' symptoms cannot be in the best interest of the patient or the future of pharmacy. Until recently, the PSGB Council's policy, was that the pharmacist should deal with any requests for advice about symptoms; training of assistants in this area was therefore felt to be unnecessary<sup>193,194</sup>. In practice, the situation was quite different, and several research workers showed that counter assistants were "responding to symptoms". However, in its response to the recommendations made by the Nuffield Inquiry Report<sup>3</sup>, Council accepted that for the community pharmacist to take on further roles, the pharmacy must have staff trained to recognised standards, to include the management of common symptoms<sup>195</sup>. Structured training courses leading to a recognised qualification were proposed, and it was envisaged by Council that counter assistants, having achieved the necessary standard, might in future be able to sell certain "P" medicines other than under the pharmacist's supervision<sup>195</sup>.



### Questioning about symptoms

The survey of advice given in community pharmacies revealed that, in general, patterns of questioning by pharmacists or their staff did not elicit sufficient information on which to base a reasoned decision about the symptoms described. For example, in a scenario which involved the possible recommendation of ibuprofen, only one of the forty-seven pharmacists and none of the eight counter assistants involved asked whether the patient was taking any other prescription or OTC medicines. This lack of appropriate questioning about current medication has also been found by other workers<sup>65,71</sup>. If potential interactions between medicines recommended by the pharmacist and those currently being taken by the patient are to be avoided, and drug-induced symptoms recognised, it is essential for the pharmacist to have an awareness of any concurrent therapy.

### Appropriateness of recommended treatments

The medicines recommended in the survey were all thought to be appropriate to treat the symptoms described, but the recommendations must be considered against the background of information obtained by the pharmacist or assistant. Although ibuprofen might well be an appropriate treatment for muscular pain, it would be inappropriate if the patient had previously experienced sensitivity to aspirin, as some of the pharmacists in the study would have appreciated had their knowledge base been sound. Any recommendation to take ibuprofen would be inappropriate if the patient was already taking a non-steroidal anti-inflammatory drug prescribed by their doctor. Only one pharmacist in the study would have obtained such information from his questioning.



### Currency of pharmacists' knowledge

The currency of knowledge demonstrated by some community pharmacists in the survey was shown to be incomplete. Nineteen of the forty-seven pharmacists appeared to be unaware of the possibility of cross-sensitivity between ibuprofen and aspirin. Encouragingly, however, twenty-eight (60%) advised against the use of ibuprofen, or recommended its use only with caution. The question of whether it can be considered satisfactory that over one third of pharmacists did not give appropriate advice according to current knowledge must be addressed.

In a 1984 study which evaluated GPs' prescribing of tetracyclines in children, it is noteworthy that 26% of respondents said they would prescribe tetracyclines for children under twelve years old, even though the adverse effects of the drug on childrens' teeth have been well-documented<sup>196</sup>. This evidence of inappropriate prescribing shows that some GPs were unaware that for young children, current opinion was that tetracycline should not be prescribed, and raises questions about currency of knowledge among practising doctors.

Dunn and Hamilton<sup>162</sup> identified the elements which characterised successful postgraduate education provision. One of their criteria was the convenience with which the intended recipients could receive the information. Information about possible sensitivity to ibuprofen had appeared in the "mainstream" pharmaceutical press<sup>176,177,178</sup> and had resulted in one of the manufacturers of ibuprofen OTC announcing, via the letters column of the Pharmaceutical Journal<sup>177</sup>, that they intended to include a warning on the packaging.

The findings from this and other studies indicate priorities in postgraduate education. Structured

questioning is necessary before the pharmacist can make any recommendation about symptoms, and the teaching of appropriate questioning patterns is essential. Differentiation of minor symptoms from those which are potentially more serious is also an essential part of the process of responding to symptoms, and pharmacists' skills in this area have been demonstrated to be inadequate<sup>65</sup>. Accurate and current information about over the counter treatments, their advantages and potential adverse effects must also form a priority in pharmacists' training. This is particularly important for those medicines which have been deregulated from POM to P, and which are relatively more potent than many OTC medicines. If pharmacists are to be given the responsibility of recommending an increasing range of potent remedies, they must have sufficient knowledge to do so without risk to patients.

Results from a survey carried out to assess pharmacists' attitudes to deregulation of topical hydrocortisone and their knowledge of the conditions for which it might be recommended showed that while 90% of respondents claimed to know the indications and contra-indications to its use, up to 35% gave incorrect responses to questions based on these areas<sup>197</sup>. The researchers were concerned that pharmacists' knowledge was incomplete, and that hydrocortisone might be recommended inappropriately, despite the extensive availability of information for pharmacists about its use, after its deregulation in May 1987.

#### Means of providing continuing education

The acquisition of new information or the updating of the old knowledge base are important issues within any profession where new knowledge from research and clinical

experience becomes available at a rapid rate, as in pharmacy. The problem of motivating and helping pharmacists working in the community sector, often isolated from their peers and without ready access to current journals and texts, must be addressed. The Nuffield Report did not favour mandatory continuing education, but proposed instead that regular assessments should be a requirement for continued registration.

Simply providing a greater number of postgraduate courses on responding to symptoms would not be sufficient, since the majority of pharmacists never attend such courses. Development of the role of journals in the continuing education of pharmacists might be a more effective means of ensuring a wider uptake of material. Since 1984, two attractively presented pharmacy publications have been established, Pharmacy Update, a monthly journal, and Pharmacy Dialogue. Both these publications have included material on responding to symptoms. Recently, the Pharmaceutical Journal began a major series of continuing education articles, covering many aspects of practice, including responding to symptoms. However, since participation at courses and the reading of journals cannot be guaranteed to improve and update pharmacists' practice, it may be that some system of reassessment is a desirable long-term aim.

### Timing of education/training on responding to symptoms

Currently, unless material is taught at undergraduate level, there is no guarantee that all pharmacists will receive it, because currently the pre-registration year can be outside community pharmacy, and post-registration there is no compulsion for pharmacists to avail themselves of opportunities for training. There is thus a strong argument for teaching at least the principles of responding to symptoms at undergraduate level. The problems inherent in this approach should be recognised; the students may not have had any work experience in community pharmacy, and therefore have had no opportunity to observe or practice the required skills by dealing with patients' problems in a work setting.

However, it should be possible to teach students the concepts and fundamentals of the process of responding to symptoms, using problem-solving methods to develop their skills. The principles of history-taking, related to pathology and the differentiation of minor from major conditions, and a logical, scientific approach to the selection of appropriate treatments, could be introduced at undergraduate level. The involvement of practising community pharmacists would be invaluable in this area, and increasing the number of teacher-practitioners in community pharmacy would facilitate this. Currently, only two such teacher-practitioners have been formally appointed<sup>198</sup>. Such an awareness could be developed during the pre-registration year, especially if the proposal of the PSGB Working Party on Education and Training, that all students should gain six months' pre-registration experience in community pharmacy, is accepted. The proposed vocational year post-registration should, if



implemented, provide further opportunities to develop competency in responding to symptoms.

#### The role of pre-registration training

The skills of the pre-registration tutor will remain a major influence on the quality of training received by the pre-registration pharmacist; ideally, the tutor should act as a role model, demonstrating high standards of professional practice to be followed by the student. For the tutor to teach the appropriate skills for responding to symptoms, he or she must possess those skills, and it should be recognised that, at least in the short-term, some tutors' undergraduate and postgraduate education may not have equipped them for such a role. There is currently no formal assessment of competency of the tutor. Instead, the pharmacy premises are approved as establishments for pre-registration training. There is surely a strong case for approval of tutors and providing opportunities for appropriate training where necessary.

#### Diagnosis or response to symptoms?

The PSGB Working Party on Responding to Symptoms, which presented its report in 1981, identified a need for more postgraduate courses on the subject and recommended that such courses should be arranged. An earlier Branch Representatives' Meeting motion<sup>81</sup> had urged the Pharmaceutical Society to set up a course to teach community pharmacists to "diagnose and treat patients".

The term "diagnosis" has always been a matter for debate in relation to the pharmacist's response to symptoms. While the BMA endorsed the Working Party guidelines on responding to symptoms the PSGB felt it prudent to reiterate that pharmacists did not diagnose illness, this



clearly being the normal prerogative of doctors<sup>82</sup>. It could be argued that the very process of responding to symptoms constitutes the making of a diagnosis by the community pharmacist, indeed, Balon<sup>200</sup> has stated that "when the pharmacist responds to symptoms or offers any advice on medical matters, he must diagnose the patient's condition to ensure the correct course of action, be that to counsel, refer or prescribe". Hardisty<sup>201</sup>, on the other hand, while supporting the role of the pharmacist in responding to symptoms, argued that "an earlier act of diagnosis .... is not within the pharmacist's purview".

Diagnosis is defined as "The process of determining the nature of a disorder by considering the patient's signs and symptoms, medical background and, where necessary, the results of laboratory tests and X-Ray examinations"<sup>199</sup>. This definition implies that a diagnosis is reached and the patient's condition identified. However, in practice, the process of responding to symptoms essentially involves an exclusion by the pharmacist of potentially serious conditions rather than the identification of a specific condition, although there may be cases where the term "diagnosis" would be appropriate.

Since the availability of topical hydrocortisone over the counter, where the pharmacist may only sell the product to treat irritant or allergic dermatitis or insect bites, it could be argued that the pharmacist is required to make a diagnosis before recommending hydrocortisone to any patient. Certainly, conditions such as allergic or irritant dermatitis can be readily diagnosed where a likely cause is identified. However for many of the symptoms dealt with by pharmacists, no such definite decision can be reached. If the patient has "indigestion", then the pharmacist can, by careful questioning, exclude potentially

serious causes of the symptoms: the label attached to the condition; simple or minor indigestion, is still a non-specific term.

Considering again the dictionary definition of the term diagnosis, most pharmacists in community practice have access to neither the patient's medical records nor to the results of investigative procedures. It is interesting to look further at the definitions of the terms "symptoms" and "signs", since both occur in the "diagnosis" definition. A symptom is defined as "An indication of a disease or disorder noticed by the patient himself. A presenting symptom is one that leads a patient to consult a doctor"<sup>199</sup>. In contrast, a sign is defined as "An indication of a particular disorder that is observed by a physician but is not apparent to the patient"<sup>199</sup>. Physical signs of disease are specifically sought during the physician's examination. Medical students are taught a model for taking a full history and then performing an examination. It is recognised that experienced doctors tend to draw conclusions about possible diagnoses during history-taking, then focus their suspicions by looking for specific physical signs during the examination. This examination for physical signs to add to information gained from the patient history is not available to community pharmacists, since they have neither training nor facilities to perform such a procedure.

Although the exact definition and true meaning of the term "diagnosis" is open to debate, it cannot be gainsaid that the pharmacist does not have as many potential sources of information at his disposal as does the doctor. Accordingly, whilst the pharmacist may occasionally make a diagnosis; for example, in cases of headlice or allergic dermatitis; such cases are the exception rather than the

rule. That is not to say that doctors, including general practitioners, make a definitive diagnosis in the majority of their consultations. Indeed, it is likely that many GPs respond, at least initially, to patients' symptoms, offering symptomatic treatment in the first instance and further investigation at a later stage, in order not to delay treatment while waiting to confirm a diagnosis. Results from the notification card project indicated that less than half the patients were examined when they saw the doctor, a prescription being made on the basis of the patient's description of their symptoms.

Therefore, community pharmacists respond to symptoms; they do not diagnose.

#### Referral from community pharmacists to GPs

The notification card showed potential for providing a regular, albeit limited, form of communication between pharmacist and doctor. The card, used when pharmacists referred patients to the GP proved acceptable to patients, doctors and pharmacists. Use of such a card long-term might act as the basis for discussion between members of the two professions, especially were an information system which was not necessarily patient-related to be developed. If community pharmacists were seen by GPs to be active providers of information about drug therapy, side effects, new products and current problems, then this might help to change the doctor's perception that the pharmacist only contacts him when a problem occurs. Calls have been made for a formal pharmacist-GP referral route in the past<sup>202</sup>.

During the notification card project, the majority of patients referred by pharmacists were thought by GPs to have symptoms which were "significant", thus indicating that the doctors who participated in the project considered

pharmacists' referrals to be appropriate. However, there is no data concerning other types of symptoms to which pharmacists responded and whether some of these cases might also have required medical advice. Although it might be postulated that only the more "serious" cases reached the doctor and that pharmacists had set the point of referral at too high a level, there is no evidence that patients whose symptoms warrant medical investigation are not advised to see the doctor by pharmacists, and the results of the notification card study seem to indicate that pharmacists have developed an appropriate referral pattern.

On some occasions, patients may have been advised to see the doctor because the medicine which the pharmacist wished to recommend was only available on prescription. It is of note that since the study period, topical hydrocortisone has become available over the counter, and that in the study, topical steroids were prescribed for fourteen of the twenty-nine patients who saw the doctor for skin conditions (49%). Many of the notification cards for skin disorders noted "dermatitis" as the symptom, and some of these cases might now be treated with topical hydrocortisone over the counter, thus reducing the number of occasions on which a GP consultation would be required.

### Professional boundaries

Part of the problem in communication between health professionals might be traced back to their undergraduate clinical training. The training of members of any profession can produce a systematic development of identification with that profession to the exclusion of others. The process of socialisation during undergraduate training and then later during practical professional training can lead to an "us and them" attitude. These



factors were discussed at a recent conference<sup>203</sup> which took as its premise that health professionals could work more effectively together for the benefit of patients' health. One paper discussed the existence of professional boundaries and the territorial nature of each profession's claim to its own boundaries. Collaboration between members of the health care team would mean the crossing or redefining of these boundaries. There is sometimes a suspicion on the part of health team members that members of related professions might try to take over some of their territory; the "Occupational Imperialism" described by Larkin<sup>204</sup>.

#### Community Pharmacists and Adverse Drug Reactions

The community pharmacist's future role in adverse drug reaction reporting remains unclear, despite several proposals that the pharmacist should be included in the reporting system, and evidence that the current yellow card system has not identified adverse reactions to over the counter medicines<sup>161</sup>. One argument against reporting by community pharmacists has been their incomplete knowledge of the patient's drug therapy, but the use of medication records could overcome this.

The role of the community pharmacist in the reporting of adverse drug reactions appears to be ripe for development. From the results of the notification card scheme, it is apparent that patients do describe possible adverse drug reactions to community pharmacists, but that not all these subsequently see the GP (nine of fourteen such patients did so following the pharmacist's advice). Direct reporting by community pharmacists of adverse reactions could be of value, particularly those to non-prescription medicines. Although most of the reactions which were described to the



community pharmacists in the study were previously known, it might be useful to record their occurrence in some way. By using the notification card, the pharmacists in the study were able to alert the general practitioner to the possibility of an adverse reaction. Following the pharmacist's intervention, of the nine patients who saw the doctor, the suspected medication was stopped in three cases and changed in another. A fifth patient was referred to a consultant for further investigation. Where the patient did not see the doctor, the notification card scheme was rendered ineffective, and the possibility of sending a copy of the card report direct to the doctor might be useful in future studies.

A previous objection to pharmacists reporting suspected ADRs direct to the CSM was that community pharmacists had no access to the patient's medical history, and therefore could not be sure of complete details of all current medication. The development of patient medication record systems, either manual or computer-based could help counter this argument. It seems likely that the potential value of involving pharmacists in the reporting scheme will eventually be recognised. Discussions are currently underway between the Pharmaceutical Society and the Committee on Safety of Medicines to develop pharmacists' role for the future, a role supported by the Nuffield Inquiry<sup>205,206</sup>. The Primary Health Care green paper, while not specifically recommending that pharmacists should report adverse drug reactions, comments thus on the keeping of patient medication records by community pharmacists, acknowledging that "this would help detect adverse reactions and interactions for individual patients, and would help patients and their doctors"<sup>77</sup>.

The climate thus seems to have changed, and it can be

forecast with some certainty that within the next five years, the role of the community pharmacist in reporting adverse reactions will be formalised and developed.

Responding to symptoms : an extended role?

The Primary Health Care green paper parallels the Nuffield Report's support for the pharmacist's role in responding to symptoms. The indication that there will be further deregulation of Prescription Only Medicines suggests support for an extended counter prescribing role. The success of the National Pharmaceutical Association's advertising campaign, as indicated by the results of market research, showing an increase in the percentage of members of the public who would be prepared to ask the pharmacist's advice about minor ailments, is echoed by anecdotal reports from community pharmacists that the number of people who request the pharmacist's advice is increasing. The public therefore seems keen to increasingly utilise the pharmacy as a source of advice. Community pharmacists must be competent and able to provide this service now and in the future. Education and training plays a vital part in ensuring such competence, and regular reassessments of practice performance would maintain high standards of competency.

Community pharmacists welcomed most of the ideas embodied by the Nuffield Report. Research has demonstrated opposition by community pharmacists to the original Nuffield recommendations about personal control and supervision<sup>108</sup>, although the proposals in the Pharmaceutical Society's Council consultative document on Nuffield have yet to be debated within the profession. Council has recommended that there should be no change in

the law relating to personal control, and that pharmacists should not be allowed to leave their premises for anything other than short time periods, even on professional business. It could be argued that if community pharmacy is advertising its professional advisory service to the public, then a pharmacist should be present at all times to provide such a service. The development of domiciliary services and services to residential homes may need to be reconsidered if Council's proposals are accepted. Such services might well be feasible within business hours for pharmacies with a second pharmacist, but would probably need to continue outside hours of opening for one pharmacist pharmacies.

The PSGB's manpower statistics<sup>12</sup> indicated that the number of pharmacists per pharmacy had not significantly increased between 1972 and 1984, and this is confirmed by recent research in the West Midlands<sup>11</sup>. The DHSS has declined to institute a second pharmacist allowance in the NHS pharmacy contract, and it would appear that there will be no significant increase in the number of two-pharmacist pharmacies for the foreseeable future.

### Women in Pharmacy

The apparent shortage of pharmacists militates against the employment of a greater number of second pharmacists, although the situation may improve as some pharmacies relinquish their NHS Contract, releasing more pharmacists. The role of women pharmacists in future manpower provision requires more careful consideration. Women pharmacists who leave practice to have and raise children have been shown to be more likely to return to community pharmacy than to other sectors of the profession<sup>207</sup>. "Retainer" schemes have been instituted in general practice medicine, where

women who leave practice are offered a minimum of two weeks work each year and the opportunity to attend regular courses to ensure maintenance and updating of the knowledge base. A job-sharing register has been established in medicine, to enable women returning to practice to work as one "half" of a partnership in what would normally be a full-time post. These attempts to adapt and make provision for the increasing numbers of women on the Medical Register could be emulated within pharmacy and might provide one means of providing second pharmacists in community pharmacy. Job-sharing could meet some of the requirements for full-time cover, and the more extensive employment of part-time second pharmacists might make it possible to undertake development of services outside the pharmacy, such as domiciliary visiting.

Since all professions have increasing proportions of women members, it is timely for more consideration to be given by all parties, including government, to the better utilisation of expensively-educated professionals who could return to practice following a career break.

#### PSGB Council's response to Nuffield

The Council's consultative document on the Nuffield Report proposes that some of the tasks in procedures for dispensing of prescriptions and selling of "P" medicines might be delegated, but only to staff adequately trained to a recognised standard, and subject to further conditions. The types of prescription which could be dispensed other than by pharmacists have been carefully defined, and any such delegation would only be allowed to take place if the pharmacy had a system of patient medication records.

Council's realistically practical proposals seem not only to embody the spirit of Nuffield's recommendations



(although they are far less radical in nature than were Nuffield's original suggestions) but also to offer the opportunity for developments in practice. It is known that less than half of all community pharmacies have any trained dispensing technicians. There is no national data to show the number of pharmacies which keep medication records, but all indications are that such pharmacies are in a small minority. The new proposals might provide a long-term incentive for community pharmacists to initiate record systems and to recognise that the training of pharmacy staff is not a luxury but an investment.

#### Counter Assistants' response to symptoms

The survey of advice given in community pharmacies confirmed the findings of previous research; that counter assistants routinely deal with requests for advice about symptoms, often without recourse to the pharmacist. The results of this research demonstrated that counter assistants asked fewer and less appropriate questions about the symptoms than did pharmacists, and showed, perhaps not surprisingly, that assistants had a lower awareness about recommended discard dates for eye preparations, and about possible cross-sensitivity between aspirin and ibuprofen. Accordingly, they did not give appropriate advice. If counter assistants are to continue to respond to patients' symptoms, appropriate training to a recognised standard is urgently required. Such training must address the question of the point at which the assistant should involve the pharmacist; i.e. assistants should be aware of the extent and limitations of their knowledge, and the point when the pharmacist's knowledge is needed.



The potential impact of adequate staff training and patient medication records on the pharmacist's potential future role in responding to symptoms is great. Patient records could be utilised to check potential drug interactions, to prevent inadvertent duplication of medicines on prescription and over the counter, and to identify any previous history of drug sensitivities or adverse effects. As more pharmacies employ trained technicians, then delegation of tasks could free more pharmacist time to deal with individual patients.

#### Community pharmacists and responding to symptoms :

##### The Future

The results of this research indicate that the potential exists for developing systems leading to better working relationships between community pharmacists and GPs. General practitioners have been shown to support the pharmacist's role in responding to symptoms, and the development of a scheme such as the notification card might increase such support, as the evidence of responsible and appropriate referrals is generated. The survey of advice given in community pharmacies identified specific training needs of community pharmacists and offered recommendations as to how those needs might be met.

There seems to be little doubt that community pharmacists have the opportunity to extend their role in responding to symptoms, with the recognition of the medical profession that the time when the more effective inclusion and acceptance of the pharmacist in the primary health care team is nearer. The recently published white paper on primary health care, "Promoting Better Health"<sup>209</sup> supports many of the issues discussed earlier, and demonstrates that

the government's intent is to develop and extend the role of the community pharmacist and to increase his contribution to primary health care for patients' benefit. It is essential that the education and training needs of pharmacists and their staff are now addressed so that the opportunities inherent in the white paper can be fulfilled.

## RECOMMENDATIONS FOR FUTURE WORK

1. Examination of lay referral patterns, the sources of advice utilised by members of the public. In particular, the factors which affect advice-seeking from the pharmacist could be elucidated, and patients' perceptions of the pharmacist's advice, and its usefulness. This is an area which has not been addressed.
2. Further use of the notification card on a larger scale, possibly nationally, to collect more quantitative data over a longer time scale. Patients' attitudes to the card could be further examined. The potential usefulness of a third copy sent directly from the pharmacist to the GP should be determined. It might be possible to document qualitatively, any changes in pharmacist/GP relationships long-term. The potential for "closing the loop" to allow feedback from GP to pharmacist must be examined and evaluated.
3. Further work is needed to evaluate the role of the counter assistant in responding to symptoms, including a national survey of the training and qualifications of non-pharmacist staff, identification of training needs and evaluation of the effectiveness of training programmes. In particular, the work should closely examine the work of counter assistants, since they are more likely than dispensing technicians to be dealing with patients' symptoms.

4. A study of the use of patient medication records in responding to symptoms to augment existing work to identify potential incompatibilities in prescribed medication.

5. An evaluation of pharmacists' training in responding to symptoms to identify the most appropriate training techniques and content.

6. A study of the potential role of the community pharmacist in the detection and reporting of adverse drug reactions, to include identification of the training needs for such a role.

SURVEY OF OPINION OF GENERAL MEDICAL PRACTITIONERS ON  
COUNTER PRESCRIBING BY PHARMACISTS

Questionnaire

COUNTER PRESCRIBING:

Definition:- The recommendation by a pharmacist, using his own professional judgement, of the best available medicine (or alternative remedy\*) to treat a particular symptom described by a member of the public.

\* includes both general health advice and referral to the patient's G.P.

Please answer questions below by ticking the appropriate box where available or stating your answer in the space provided.

1. Do you believe that in general, the counter prescribing activities of pharmacists should:

- a) be decreased?  
b) remain as they are?  
c) be increased?

--

Please give your reasons: .....

.....  
.....  
.....

2. Are there any particular conditions frequently presented to you which you would like to see being dealt with firstly by pharmacists, the patient being referred to the doctor only if treatment failed in a given time?

Please give your answers in order of importance:

- a) those conditions where you consider the pharmacist currently has the relevant knowledge

- 1) .....  
2) .....  
3) .....

- b) those conditions where you consider the pharmacist could perform adequately after a small number of postgraduate lectures and demonstrations by a clinician.

- 1) .....  
2) .....  
3) .....



3. Are there any particular symptoms (apart from obviously severe ones where the patient is apparently suffering serious pathology) which you feel the pharmacist should never attempt to treat other than to refer the patient to his doctor:

.....  
.....  
.....  
.....

4. Is the pharmacist in your opinion a member of the primary health care team?

Yes

☐

No

☐

If "No", what is lacking? .....

.....

5. For minor ailments, do you advise patients to see a pharmacist in order to:

- a) purchase a medicine recommended by the pharmacist for a trivial symptom.

often

☐

rarely

☐

never

☐

- b) purchase a named medicine which you have recommended

often

☐

Rarely

☐

never

☐

6. If an optician (or dentist) writes to you referring a patient for investigation, do you:

- a) acknowledge his letter only?

☐

- b) acknowledge and inform him of your findings?

☐

- c) do neither a) nor b)?

☐

- d) other (please state) .....

.....

Would you prefer pharmacists to send you a referral card with those patients referred to you, giving details of treatment which the patient had already received for a particular symptom.

Yes ☐

No ☐

If "No", give reasons: .....  
.....

If this referral card system was feasible, would you be prepared to inform the pharmacist of your findings and treatment to provide feed-back to him.

Yes ☐

No ☐

If "No", give reasons: .....  
.....

If a patient has a "chest cold" with no purulent sputum but the patient complains of a productive cough and you feel symptomatic treatment with cough medicine is appropriate, which specific products/medicines, or drugs do you usually prescribe?

.....  
.....

Is there any particular reason for this choice? .....  
.....  
.....

Which specific antacid product/medicine do you recommend for simple, uncomplicated indigestion, where symptomatic treatment is appropriate?

.....  
.....

Is there any particular rationale for this choice? .....

11. Would you be in favour of a restricted list of medicines (which are currently "Prescription Only Medicines") which could be supplied by pharmacists for short term therapy of certain conditions, provided that information of such treatment to your patient was routinely passed on to you by the pharmacist.

Yes

☐

No

☐

12. a) Suggestions for such a restricted list of medicines in the past have included:

- a) Topical steroids e.g. 1% hydrocortisone
- b) Antibiotic ear drops
- c) Antibiotic eye drops/ointment
- d) First line antibiotic oral preparations
  - i) for adults
  - ii) for children
- e) Strong analgesics, e.g. Distalgesic, Paramol 118

Do you agree	Disagree

- b) Do you have reservations about the conditions where these medicines may be used?

- a) Topical steroids .....
- b) Antibiotic ear drops .....
- c) Antibiotic eye preps .....
- d) Oral antibiotics .....
- e) Strong analgesics .....

13. Do you have any further additions to, or comments on the list in question 12?

.....

.....

.....

14. A four year old patient with earache is brought by his mother to a pharmacy on a Saturday afternoon, when there is no surgery open. He has a cold but no past history or respiratory illness or ear problems.

What would you wish the pharmacist to do? .....  
.....  
.....

If pharmacists were instructed in the use of an otoscope, would you have any objections to a pharmacist examining the ear drum of such a child above, with this instrument, and where appropriate if the ear drum was inflamed, prescribing a course of antibiotic from a restricted list of antibiotics as in Question 12?  
(With the provision that you were informed of the treatment)

Yes

☐

No

☐

15. A young woman complains to the pharmacist of cystitis but is otherwise well. She has suffered in the past and "an antibiotic" had previously been prescribed by her doctor with success. Again it is a Saturday afternoon.

What would you wish the pharmacist to do? .....  
.....  
.....

In this case, do you think it would be useful if the pharmacist tested a urine sample for bacteria and protein using an Ames stick? If the test were positive, would you think it useful for the pharmacist to prescribe from a restricted list of antibiotic/antibacterial agents, as well as recommending that the patient sees the doctor on Monday.

Yes

☐

No

☐

16. Mouth ulcers are commonly presented to pharmacists. Would you object to a pharmacist prescribing an appropriate local steroid preparation from a restricted list for a limited time, e.g. Adcortyl in Orabase, Corlan pellets?

Yes

☐

No

☐

17. If there was a reason to suspect or exclude diabetes or hypertension in an undiagnosed patient who presented to the pharmacy, would you object to the pharmacist precluding these diagnoses (provided that any suspicious findings were referred to you for confirmation) by respectively a) measuring glucose levels in urine or blood?

Yes ☐

No ☐

and b) measuring blood pressure

Yes ☐

No ☐

18. Some over the counter medicines, including aspirin and paracetamol are available for sale in stores and supermarkets, (i.e. non-pharmaceutical premises) Do you consider this:

a) Satisfactory ☐

b) Unsatisfactory ☐

Please give reasons .....

.....

.....

19. Do you know what percentage of the population with symptoms go to their doctor for first line treatment?

.....%

20. Approximately how many times per day does the pharmacist currently counter prescribe, on average in this country?

..... patients/day

21. Do you think the pharmacist could operate more effectively, evaluating symptoms and recommending treatment of referral, if he had better contact with the doctor, e.g. joint meetings on symptomatology and treatment of commonly presenting conditions?

Yes ☐

No ☐

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22. Are you aware of any current obstacles to pharmacists advising patients on their symptoms and supervising their self-medication where appropriate?

.....  
.....

How could these problems be resolved? .....

.....  
.....

We thank you most sincerely for your participation and for the time and trouble you have taken to help us.

Any further comments you may wish to make on this subject will be much appreciated.

If you wish to include your name and address in case of further communication, please do so below:

Name: .....

Address: .....

.....  
.....

SURVEY OF OPINION OF GENERAL MEDICAL PRACTITIONERS ON COUNTER  
PRESCRIBING BY PHARMACISTS

QUESTIONNAIRE NO.

CARD NO.

COUNTER PRESCRIBING:

Definition:- The recommendation by a pharmacist, using his own professional judgement, of the best available medicine (or alternative remedy\*) to treat a particular symptom described by a member of the public, but only after deciding an immediate medical consultation is not necessary.  
\*Includes general health advice.

Please answer questions below by ringing the appropriate numbered response where available or stating your answer in the space provided.

Do you believe that, in general, the counter-prescribing activities of pharmacists should:

- a) Be decreased? A  
b) Remain as they are? B  
c) Be increased? C

Please give your reasons .....

.....  
.....

Rate the following conditions as to how much you would like to see them being dealt with in the first instance by pharmacists, the patient being referred to the doctor only if treatment failed in a given time?

	Very Desirable	Not Sure	Least Desirable	
Cough	3	2	1	8
Colds/Flu	3	2	1	9
Muscular aches & pains	3	2	1	10
Minor skin conditions	3	2	1	11
Diarrhoea	3	2	1	12
Constipation	3	2	1	13
Indigestion	3	2	1	14
Mouth ulcers	3	2	1	15
Piles	3	2	1	16
Cystitis	3	2	1	17
Any others (please specify)				
.....	3	2	1	18

Is the pharmacist, in your opinion a member of the primary health care team?

- Yes 1  
No 2

If "No", what is lacking? .....

.....

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☐ ☐ ☐

1, 3

1

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☐ ☐

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☐ ☐

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4. For minor ailments, do you advise patients to see a pharmacist in order to:

a) Purchase a medicine recommended by the pharmacist for a trivial symptom:

Often	1
Sometimes	2
Rarely	3
Never	4

b) Purchase a named medicine which you have recommended:

Often	1
Sometimes	2
Rarely	3
Never	4

5. If an optician (or dentist) writes to you referring a patient for investigation, do you

- |  |   |
|--|---|
| a) Acknowledge his letter only (by letter or 'phone call)?                 | A |
| b) Acknowledge and inform him of your findings (by letter or 'phone call)? | B |
| c) Do neither a) nor b)?   | C |

6. Would you have any objection to a scheme whereby pharmacists sent you a notification card with those patients referred to you by them giving details of any treatment which the patient had already received from the pharmacy for a particular symptom

Yes	1
No	2

If "Yes" please give reasons .....

7. If this notification card system was feasible, would you be prepared to inform the pharmacist of your findings and treatment to provide some feedback to him?

Yes	1
No	2

If "No", please give reasons .....

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If an otherwise healthy adult patient has a 'chest cold' with no purulent sputum but complains of a 'productive cough' and you feel symptomatic treatment with cough medicine is appropriate, which specific products/medicines do you usually prescribe?

FREQUENTLY OCCASIONALLY NEVER

1. Benylin Expect.	3	2	1	
2. Actifed Co.	3	2	1	31
3. Mist. Morph. et Ipecac.	3	2	1	32
4. Mist. Ammon. et Ipecac.	3	2	1	33
5. Mucodyne	3	2	1	34
6. Linctus Simplex	3	2	1	35
7. Pholcodine Linctus	3	2	1	36
8. Alupent Expect.	3	2	1	37
9. Gees Linctus	3	2	1	38
10. Phensedyl	3	2	1	39
11. Linctified	3	2	1	40
12. Other (please specify) .....	3	2	1	41
				42

What are your reasons for these choices?

IMPORTANT OF SOME IMPORTANCE UNIMPORTANT

1. Effective	3	2	1	43
2. Cheap	3	2	1	44
3. Habit	3	2	1	45
4. Acceptable to patient	3	2	1	46
5. Other (please specify) .....	3	2	1	47

Which specific antacid product/medicine do you recommend for simple uncomplicated indigestion, where symptomatic treatment is appropriate?

FREQUENTLY OCCASIONALLY NEVER

1. Magnesium trisilicate (mixture or tablets)	3	2	1	48
2. Aluminium hydroxide (mixture or tablets)	3	2	1	49
3. Asilone (gel, suspension or tablets)	3	2	1	50
4. Mucaïne	3	2	1	51
5. Antasil	3	2	1	52
6. Dijex	3	2	1	53
7. Polycrol	3	2	1	54
8. Gaviscon	3	2	1	55
9. Andursil	3	2	1	56
10. Altacite Plus	3	2	1	57
11. Aludrox SA	3	2	1	58
12. Other (please specify) .....	3	2	1	59

What are your reasons for these choices?

IMPORTANT OF SOME IMPORTANCE UNIMPORTANT

1. Effective	3	2	1	60
2. Cheap	3	2	1	61
3. Habit	3	2	1	62
4. Causes little bowel disturbance	3	2	1	63
5. Other (please specify) .....	3	2	1	64

10. It has been suggested that certain 'Prescription Only Medicines' could be supplied by pharmacists for short-term treatment of specific symptoms provided that a proper record of the supply was made.

What would be your attitude towards the pharmacist supplying the following:

	AGREE	NOT SURE	DISAGREE	
a) 0.5% hydrocortisone cream or ointment	3	2	1	65
b) Neomycin/bacitracin/framycetin in formulations for topical use only	3	2	1	66
c) Chloramphenicol eye drops 0.5%	3	2	1	67
d) Sulphacetamide eye ointment 6%	3	2	1	68
e) Paramol 118 tablets (contain paracetamol 500 mg + dihydrocodeine tartrate 10 mg). Maximum of 2 or 3 days' supply	3	2	1	69
f) DF118 tablets (contain dihydrocodeine tartrate 30 mg). Maximum of 2 or 3 days' supply	3	2	1	70
g) Lomotil tablets (Diphenoxylate + atropine) <u>or</u> codeine phosphate 30 mg tablets - <u>for diarrhoea</u> , maximum of 2 days' supply	3	2	1	71
h) Anusol HC/Scheriproct/Proctosedyl ointment or suppositories for <u>haemorrhoids</u>	3	2	1	72
i) Corlan pellets or Adcortyl in Orabase for <u>mou</u> th ulcers	3	2	1	73

11. Are there any occasions where the pharmacist should not supply any of the products listed above?

Yes 1  
No 2

If so, please state .....

.....

12. A four year-old patient with earache is brought by his mother to a pharmacy on a Saturday afternoon, when there is no surgery open. He has a cold, but no history of past respiratory illness or ear problems.

What would you wish the pharmacist to do?

- |  |   |
|--|---|
| 1. Refer to GP immediately   | 1 |
| 2. Supply analgesics and advise to see doctor only if condition deteriorates | 2 |
| 3. Ring GP   | 3 |
| 4. Other (please specify) .....  | 4 |

If pharmacists were instructed in the use of an otoscope would you have any objections to a pharmacist examining the ear drum of such a child, above, with this instrument and where appropriate, if the ear drum was inflamed, supplying an emergency course of antibiotic from a restricted list of antibiotics (with the provision that you were informed of the treatment).

Yes 1  
No 2



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Questionnaire no.  
Card no.

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2			4
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5,

A young woman complains to the pharmacist of cystitis, but is otherwise well. She has suffered in the past and 'an antibiotic' had previously been prescribed by her doctor with success. Again, it is a Saturday afternoon.

What would you wish the pharmacist to do?

- 1. Refer to GP immediately 1
- 2. Ring GP 2
- 3. Supply potassium citrate mixture and advise to see doctor only if condition deteriorates? 3
- 4. Other (please specify) ..... 4

In this case, do you think it would be useful if the pharmacist tested a urine sample for bacteria and protein using an Ames stick? If the test were positive, would you think it useful for the pharmacist to prescribe from a restricted list of antibiotic/antibacterial agents, as well as recommending that the patient sees the doctor on Monday?

- Yes 1
- No 2

Please give reasons for your answer .....

Many over the counter medicines, including analgesics, cough medicines and cold remedies are available for sale in stores and supermarkets (i.e. non-pharmaceutical premises without the availability of a pharmacist's advice if required). Do you consider this:

- Satisfactory 1
- Not sure 2
- Unsatisfactory 3

Please give reasons .....

What percentage of the population with symptoms do you think go to their doctor for first-line treatment?

- Up to 10% 1
- 10% to 25% 2
- 25% to 50% 3
- 50% to 75% 4
- 75% to 90% 5
- Over 90% 6
- Don't know 7

Approximately how many times per day do you think that the average pharmacist is called upon to counter prescribe for minor ailments in this country?

- Less than 10 1
- About 15 2
- About 25 3
- 35 or more 4
- Don't know 5

6  
7  
8, 9  
10  
11, 12  
13  
14

17. Do you think the pharmacist could operate more effectively if he had better contact with the doctor as a result of:

- |  |     |   |
|--|-----|---|
| a) Some joint postgraduate (DHSS-sponsored)    | Yes | 1 |
| extension courses on therapeutics              | No  | 2 |
| b) Some joint meetings, such as those promoted | Yes | 1 |
| by pharmaceutical manufacturers                | No  | 2 |

18. Are you aware of any current difficulties/problems for pharmacists advising patients on their symptoms and supervising their self-medication where appropriate?

.....  
.....

If so, how could these difficulties be resolved?

.....  
.....

We thank you most sincerely for your participation and for the time and trouble you have taken to help us.  
Any further comments you may wish to make on this subject will be much appreciated.  
If you wish to include your name and address in case of further communication, please do so below:

Name: .....  
Address: .....  
.....

Please tick if you wish to receive a summary of our findings ☐

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17, 1



20, 2



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Appendix 3.1:  
Notification Card  
(Draft Version)

To Doctor .....		Serial no. 1134
NOTIFICATION CARD		
DATE .....	Pharmacy stamp	
PATIENT'S NAME .....		
ADDRESS .....		
.....		
Symptoms reported by patient (please print) .....		
.....		
Known OTC medication (if any) (please print) .....		
.....		
Duration of symptoms .....		
Additional information .....		
.....		
Signature of pharmacist .....		
Pharmacy Practice Research Group Project, University of Aston in Birmingham		

Appendix 3.2 :

Notification Card

Section for completion

by the GP

To the Patient:- Please hand this form to your doctor when you visit him/her as it is designed to help you.

For completion by the patient's doctor

DATE .....

Do you consider the symptoms reported by this patient

Significant?  
Not significant?

--	--

If significant, what action was taken?

a) Change of medication

b) Starting medication

c) Examination & investigation

d) Other (please specify)

eg: referral, further appointment

--	--

.....  
.....

In this case, do you think this form has been

Helpful?

Not helpful?

--	--



Appendix 3.3 :  
Notification Card  
(Amended Version)

*TO THE PATIENT - Please hand this form to your doctor when you visit him/her as it is designed to help you.*

To Doctor.....		NOTIFICATION CARD		Serial No.
Date.....	Infant/Child	Age .....		Pharmacy Stamp
Patient's initials and surname (please print) .....				
Address .....				
.....				
Symptoms reported by patient (please print) .....				
.....				
Duration of symptoms .....				
<b>Current medication (if any)</b>				
(a) Patient is already using .....				
(b) I have counter-prescribed .....				
Additional information .....				
.....				
Signature of Pharmacist .....				
Pharmacy Practice Research Group Project, University of Aston in Birmingham				

## NOTIFICATION CARD PROJECT

REPORT ON VISIT TO ROSS-ON-WYE GROUP 18.2.86

NO. OF CARDS ISSUED : 14

Surgery 1 (Smith, Clark, Rogers, Mellor) 10 cards

5 cards recovered

Surgery 2 (Parker, Hartshorn, Cook) 4 cards

1 card recovered

10 of the 14 patients visited the GP

Card recovery rate = 5/14

i.e. 4 of the 14 patients did not visit the GP

All 10 patients were prescribed medication by the doctor

### Symptoms

#### SKIN:

Rash on hands  
Rash on neck  
Rash on hand  
Ulcers on ankles  
Eczema on chin

#### EYE & ENT

Persistent styte  
Inflamed eye  
Sore mouth & sickness  
Earache  
Severe catarrh

#### RESPIRATORY:

Chesty cough (clear sputum)  
Dry cough

#### GENITO-URINARY

Discomfort on passing urine

Further supply of medication needed

#### DETAILS OF CARDS ISSUED:

BH1 : Adult female  
Chesty cough - clear sputum  
3 weeks duration  
Counter prescribed Guaiphenesin Syrup  
Dated 27.8.85

Follow-up : Patient did not visit GP

BH2 : Adult female

Circular rash on hands - possibly fungicidal

1 week's duration

Counter prescribed Canesten Cream

Dated 16.1.86

Follow-up : Patient did not visit GP

BH3 : Adult male

Dry cough - some clear sputum

2 - 3 weeks duration

Counter prescribed Cremacoat (Dextromethorphan)

Dated 6.2.86

Follow-up : Patient did not visit GP

BH30 : Adult female

Recurrent styne on left eye

One week this time

Patient already using Brolene Ointment

Dated 7.10.85

Follow-up : Visit to GP 7.10.85

Medication prescribed (Chloromycetin)

SB1 : Adult female

Rash on neck caused by silver necklace

2 days' duration

Patient already using Cetavlex

Rash beginning to weep

Dated 16.8.85

Follow-up: Visit to GP 16.8.85

Medication prescribed

Card recovered

Symptoms significant & card helpful

SB2 : Adult

Sore & inflamed eye

2 days duration

Patient using Optrex & saline washes

Had dust in eye - infection or damage?

Dated 20.8.85

Follow-up: Visit to GP (date unknown)

Card recovered

Examination & prescribed medication

Symptoms significant & card helpful

SB3 : Adult female

Rash on hand - caused by detergent?

2 or 3 days duration

Patient using Germolene  
History of contact dermatitis  
Dated 21.8.85

Follow-up: Visit to GP 21.8.85  
Medication prescribed  
Card recovered  
Symptoms significant and card helpful

H1 : Adult female  
Discomfort on passing urine & frequency  
1 weeks' duration  
Patient using Septrin (prescribed by own GP), one dose  
remaining  
Dated 27.8.85

Follow-up : Visit to GP 27.8.85  
Septrin tablets prescribed  
Card recovered  
Symptoms significant & card helpful

H2 : Adult male  
Earache  
4 days duration  
Patient using wax-softening agent for 2 days  
No improvement with this treatment  
Dated 5.9.85

Follow-up : Visit to surgery 5.9.85  
Amoxil prescribed  
Card recovered  
Symptoms significant & card helpful  
GP added comment on card that patient had middle ear  
infection

H4 : Child, female, Aged 3 years  
Sickness & sore mouth  
SADR to Merbentyl, which had been prescribed by the GP the  
day before  
Dated 19.10.85

Follow up : No visit to GP

H5 : Adult male  
Ulcers on ankles (Bedridden patient)  
One month's duration  
Card not issued to patient's representative  
Dated 7.11.85

Follow-up : Home visit by GP (date unknown)  
Eusol prescribed

H6 : Adult female  
Severe catarrh  
1 week's duration & seems to be worsening



Patient taking Delta-Cortril from GP  
Dated 2.1.86

Follow-up : Visit to GP 6.1.86  
Sudafed prescribed  
Card not recovered

H8 : Adult female  
Temporary resident, insufficient supply of medication  
Dated 28.1.86

Follow-up : Visit to GP 28.1.86  
Folic acid tabs prescribed  
Card not recovered

H10 : Adult female  
Rash on chin  
2 years' duration but increased soreness recently  
Patient had tried various bland creams  
Dated 14.2.86

Follow-up : Visit to GP 17.2.86  
Trimovate prescribed  
Card not recovered



N.H.S. GENERAL OPHTHALMIC SERVICES

Reference of patient back to General Medical Practitioner

SECTION 1. To be completed by Ophthalmic Medical Practitioner/Ophthalmic Optician

Patient: Mr./Mrs./Miss..... (Block Letters)	O.M.P.'s/O.O.'s Name and Address
Address .....	
Date of Birth...../...../.....	

	V.	Sph.	Cyl.	Axis	Prism	Base	V.A.	ADD	Near V.A.	Previous corrected visual acuity
R.E.										
L.E.										

To Dr. .... Date .....

I am referring this patient to you because

(continue overleaf if necessary)

If you refer the patient to hospital please send the ophthalmologist this form complete.  
If you do not refer the patient please complete Section 3 below and return it to me.

Date ..... Signed.....

SECTION 2. For General Medical Practitioner's use

1. Patient seen and Section 3 returned to O.M.P./O.O. on .....  
Or 2. To the Consultant Ophthalmologist ..... Hospital

I should be obliged if you would see the patient named above in view of the findings recorded and the following history

(continue overleaf if necessary)

<b>FOR HOSPITAL USE</b>	Date .....
Section 3 sent to O.M.P./O.O. ....	Signed.....
G.M.P. advised .....	Date.....

SECTION 3. Reply by the General Medical Practitioner (if the patient is not referred to hospital) or Ophthalmologist

To ..... O.M.P./O.O.  
Mr./Mrs./Miss ..... of

..... may be supplied  
..... should not

with glasses under the General Ophthalmic Services.

Remarks:

(continue overleaf if necessary)

Name and Address of General Medical Practitioner  
or Hospital

Signed.....  
Date.....

PHARMACY ..... ~~Pharmacy~~ Advice Survey .....

TIME ..... DAY & DATE .....

PHARMACIST ASKED FOR Y / N WAITING TIME TO SEE PHARM .....

ATTITUDE OF PHARM. ....

QUERY TO ASSISTANT Y / N ☐ Referred to pharm  
☐ Pharm intervened  
☐ Assistant consulted pharm  
☐ Pharmacist on counter

QUESTIONS ASKED: ☐ NONE  
☐ Duration of symptoms  
☐ Severity of symptoms  
☐ Previous history  
☐ OTC medicines tried already  
☐ Any script or other medicines being taken  
☐ Any stickiness in eyes  
☐ Any history of hayfever

Other questions and brief details of conversation .....

PRODUCT RECOMMENDATIONS : .....

PURCHASE MADE Y / N PRICE ..... P ..... GSL

LEVEL OF SUPERVISION ☐ 1 None  
☐ 2 Token - bell/buzzer, product name called  
☐ 3 Positive and discreet  
☐ 4 Pharmacist intervention or involvement

ADVICE GIVEN .....

No of medicines counter assts. .... No of other customers .....

No of customers waiting for scripts (est.) .....

Pharmacist mainly ☐ In dispensary  
☐ On counter

Pharmacist easily recognised? ☐ Badge  
☐ White coat  
☐ Male  
☐ Female

PHARMACIST REQUESTED M / F APPROX. AGE .....

QUERY TO ASSISTANT M / F APPROX AGE .....

IF PHARMACIST UNAVAILABLE, WHY? .....

LOCATION CODE .....

APPENDIX 4.2 : Protocols, Responding  
to Symptoms Evaluation

EYE SYMPTOM

Opening conversation:

"Can you recommend something for my sister, her eyes are red"

Background information (To be disclosed only in answer to pharmacist or counter assistants questioning)

Age of patient - 6 years

Duration of symptoms - 1- 2 days

Associated symptoms - eyes itching but not sore or painful.

No feeling of grittiness

No sneezing or runny nose.

No stickiness or yellow matter in the eyes

Over the counter medicines - none tried

Other medicines - none being taken

Cause of symptoms - presenter has no ideas as to the possible cause of the symptoms

Patient has no previous history of these symptoms

Patient has no history of hayfever or other allergy

After questioning, if an over the counter eye preparation is recommended, statement:

"I think we've got some of those at home already - would they be OK to use?"

Purchase any product/s recommended

## MUSCULAR SYMPTOM

### Opening conversation:

"I've twisted my knee and it's quite painful. I've seen an advert for some tablets, Nuro... something.

(Wait for identification of Nurofen by pharmacist or assistant)

Would they be any good for a twisted knee?"

Background information (to be disclosed only in answer to questioning by pharmacist or counter assistant)

Duration of symptoms - One day

Over the counter medication - Paracetamol already tried, with little effect

Other medicines - no other prescription or over the counter medicines being taken

Cause of symptoms - fell yesterday

If at this point Nurofen is recommended, say the following:

"They don't contain any aspirin, do they? I can't take aspirin, it makes me very wheezy and breathless, and my face goes blotchy"

Purchase Nurofen or other medicine recommended

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